NEWSLETTER

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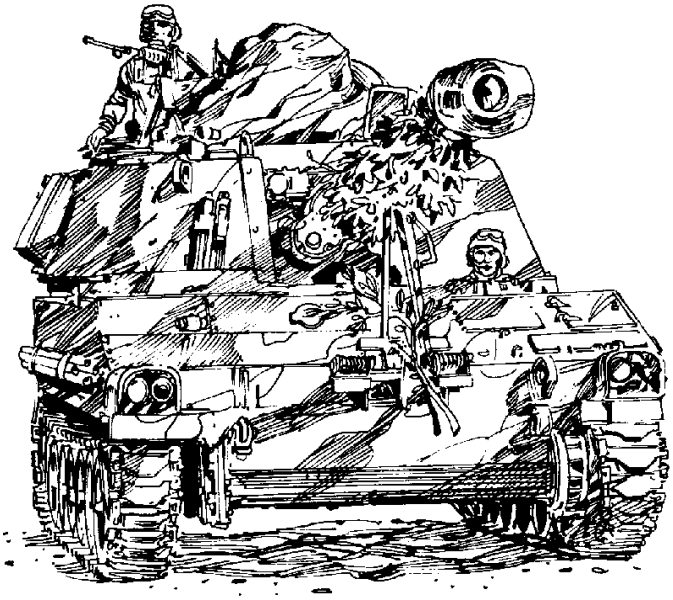
National Training Center's

FIGHTING WITH FIRES III



Warfighting Techniques and Procedures

CENTER FOR ARMY LESSONS LEARNED (CALL)
U. S. ARMY TRAINING AND DOCTRINE COMMAND (TRADOC)
FORT LEAVENWORTH, KS 66027-1327

"Fighting With Fires" **is a periodic training feedback bulletin published by CALL for the Operations Group Fire Support Division Observers/Controllers at the National Training Center, Fort Irwin, CA. This bulletin provides recent fire support trends, both positive and negative, which have been observed during NTC training rotations. The views expressed are those of the authors and should not be construed as doctrine.** ***"Fighting with Fires"*** **content does not necessarily reflect the U.S. Army's position. This bulletin is an informal means of sharing tactics, techniques, and procedures (TTPs) which emerge as BLUFOR units fight with fires during simulated combat operations.**

Greetings from the Wolf Team at Mojavia!
This is NTC's third "Fighting with Fires" newsletter, and my first since arriving at the Fire Support Training Division. I hope you were able to review and benefit from the information contained in our two previous issues. My goal is to routinely get our observations out to the field and in the hands of warfighters to improve our Army's future performance.

The Fire Support trainers have already noted improvements in several areas throughout recent rotations. These include an improved FA battalion orders process, a reduction in firing incidents, and a clearer understanding of the commanders' guidance for fire support.

These improvements are certainly encouraging, and are an indication that good TTPs are trained at Home Station. However, areas that player units still have difficulty with during their rotation at NTC include close air support planning and execution, integrating the TF FSO into the TF staff, and most importantly, observer planning and execution. Training at Home Station must continue to pursue the maneuver commander's guidance for fire support in terms of task and purpose. Units must be able to translate fire support requirements into an understood scheme of fires at all levels and include a detailed observation plan that includes both brigade and task force observers.

The NTC experience should expand on the brigade's ability to deliver effective indirect fires--suppressing the enemy versus killing the enemy. Understanding the requirements versus the guidance is tough. There are many players across the brigade combat team, not just fire supporters, which play key roles. Some questions that still must be asked to improve overall effectiveness on the battlefield:

- **What does the commander want fires to do?**
- **How long will it take to suppress versus kill?**
- **What is the ammunition requirement to suppress versus kill?**
- **Does the observation plan support accurate target location to catch enemy vehicles in their holes?**
- **Are we integrating IPB products for targeting and OPs?**
- **Does the observer have a complete understanding of his target responsibilities (task and purpose) to execute the mission?**
- **Are we battle-tracking to ensure the observer has identified the right target (formation) at the right time?**
- **Can the observer see the effects of the mission and ensure the intended effects are achieved?**

Your challenge is to work on the development of commander's guidance to develop a clear, concise, and understood scheme of fires. Remember, even an excellent fire support plan will fail without well-rehearsed observers positioned correctly to execute the plan.

I hope the fire support community and our maneuver battalions throughout the world find this newsletter helpful. We welcome any and all feedback concerning the information contained in the newsletter. Please call, write or fax any input to help us improve the newsletter, or to make requests for future articles.

MARCUS G. DUDLEY
Lieutenant Colonel, Field Artillery
Senior Fire Support Combat Trainer

Fighting with Fires III

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UNDERSTANDING OUR BUSINESS:
Synchronizing Fires and Maneuver

by CPT Kyle M. McClelland, Fire Support Analyst, National Training Center

THE ISSUE: Fire supporters at battalion/task force level and below often struggle with integrating their plans with those of maneuver forces to promote synchronization during offensive and defensive operations. The trouble may originate from the lack of published fire support doctrine to support key maneuver tasks such as ***breaching operations*** and ***engagement area development***. Doctrinal *maneuver* manuals, such as FM 71-1, 71-123, and 90-13-1, are critical building blocks which adequately address these maneuver operations, but ***Fire Support Officers (FSOs)*** are not familiar with their contents. The result is unsynchronized fires and maneuver.

THE SOLUTION: Fill the time gap in current doctrinal references. Get the Combat Training Center (CTC) "subject matter experts," small group instructors (SGIs), and the Field Artillery School doctrine writers to produce and publish "white paper" tactics, techniques, and procedures (TTPs), checklists, charts and matrices that inherently foster integration of fires and maneuver. The TTPs, checklists, charts and matrices should be tailorable to support any type unit: DS, Reinforcing, heavy, light, Paladin, Marine, and National Guard.

To initiate this integration effort, the TTPs and checklists that follow discuss the fire support role in synchronizing engagement area development and breaching operations. TTPs and checklists presented are focused at task force level.

1. *Engagement Area Development*. The critical planning piece for both maneuver and fire support during defensive operations is engagement area (EA) development. FM 101-5-1 describes an EA as, "an area in which the commander intends to trap and destroy an enemy force with *massed fires of all available weapons.* EAs are routinely identified by a target reference point (TRP) in the center of the trap area or by prominent terrain features around the area. Although EAs may also be divided into sectors of fire, it is important to understand that defensive systems are not designed around the EAs, but rather around avenues of approach. EAs and sectors of fire are not intended to restrict fires or cause operations to become static or fixed; they are used only as a tool to *concentrate fires* and to *optimize their effects."*

a. The EA development process is an "art" and the FSO plays an important part in ensuring that the "science" portion is complete. He must provide the commander with critical information and ensure that the fire support capabilities and limitations are understood.

b. During the Tactical Decision-Making Process (TDMP), *it is essential that the Fire Support Officer (FSO) be involved* for EA development and EA refinement. The task force FSO requires critical information from brigade to begin mission analysis. The following chart lists some areas that need to be addressed *prior* to the FSO entering the EA with the commander and key staff:

FSO ESSENTIAL INFORMATION

1. *Brigade commander's concept for fire support*	**A precise articulation of what and when fire support will accomplish and why it contributes to the overall plan.**
2. *Brigade scheme of fires*	**How and where FS will carry out the concept. Whether there will be a brigade deep fight. What the deep fight will accomplish/desired effects. When fires will be available for the close fight. How to transition to the close fight (triggers, POFs, control measures).**
3. *Brigade-directed obstacles in the task force sector*	**The *plan* to cover with fires.**
4. *Class V availability/constraints*	**FASCAM, DPICM, smoke, and Copperhead allocations.**
5. *Task Organization/attachments*	**COLTs and their role in the close fight.**

The information from brigade, combined with critical information from the task force (maintenance status of M981, FIST-Vs, mortars and mortar ammunition on-hand), will enable the FSO to determine capabilities and limitations for inclusion in his staff update to the commander.

c. At the completion of mission analysis, there are critical FS tasks which the task force S-3 and XO should include on the timeline to ensure they are not overlooked (some tasks may be added after the OPORD issuance and preparations have begun):

(1) Target refinement and cut-off (ensure actual versus planned obstacles are covered by indirect fires).

(2) Indirect fire triggers emplaced (day and night) (identify whether physical trigger or lazed area).

(3) Times recorded by the FSE for Co/Tm FIST's displacement from primary to alternate positions (day and night) and triggers for displacement, if planned.

(4) Mortar displacement times and triggers (identify if pre-stock is available and dug-in).

(5) Co/Tm FIST survivability positions complete (identify whether dug-in or hasty positions).

(6) Radar management (identify if CFZs/CZs have been submitted to Brigade for actual battle positions and mortar locations).

(7) Coordination of land management issues with Brigade S-3 for positioning of artillery in the task force sector (consider the effect on the task force repositioning plan or commitment of a task force/brigade reserve).

d. The S-2, engineer, and FSO are key players for the commander during the EA development process and must all participate. In a perfect world, all planning and preparation for EA construction would be performed on the ground, in the actual EA.

Time and daylight often do not permit this to occur, and the staff is confined to a map. Regardless of where or how the initial process takes place, some key areas must be addressed by each staff member:

(1) ***The S-2*** provides the commander with the most likely and most dangerous enemy avenues of approach into the task force sector.

(2) ***The FSO*** provides the commander with the Brigade deep fire plan, which will influence the enemy prior to entering the EA and what the desired BDA will be against any enemy formation. This will affect how the task force S-3 and commander array forces and conduct rough battle calculus for both direct and indirect fire weapon systems.

(3) ***The Engineer and the FSO*** then jointly provide the commander with a proposed obstacle and targeting concept to get the enemy into the EA and then destroy him.

(4) ***The Commander*** will select a point(s) on the ground (TRP) from where he wants to kill the enemy with massed fires from all available systems.

If the process is conducted on the ground, the FSO can then do an about-face and conduct hasty terrain analysis to determine likely OPs and alternate OPs to support the EA. With the Co/Tm FSOs present, they can begin OP selection and occupation to determine feasibility/tenability. Upon returning to the TOC, these positions can be entered into TERRA-BASE to determine line of sight, dead space, and produce visibility diagrams to be issued to CO/TM FISTs.

Staff integration with the S-2 and engineer during the preparation phase is essential, and the critical fire support tasks on the task force timeline need to be monitored for completion in the fire support element (FSE).

EA construction consists of seven steps:

(1) *Visualize* how the enemy will/might attack
(2) *Select* where and determine how to kill him
(3) *Position* forces to kill him with direct fires
(4) *Position* obstacle groups to support direct fires and obstacles
(5) *Plan* indirect fires to support direct fires and obstacles.
(6) *Complete* the plan, drive the EA, select/prepare final positions, site obstacles and triggers
(7) *Rehearse*

e. The FSO/FSNCO may find the following checklist of FS considerations for defensive operations helpful. The checklist can be modified to support any type unit or defensive operation.

FIRE SUPPORT CONSIDERATIONS CHECKLIST

FIST/mortar survivability ___ mounted ___ dismounted
Engineer assets_____
C2 of FISTs ___ centralized ___decentralized
Impact_____
Use of Brigade assets in the close fight
COLTS available to support close fight? ___yes ___no
Assign Bde targets in TF sector to execute? ___yes ___no

Mortars
Task and purpose_____
Solely against dismounted breaching threats? ___yes ___no

Observer positions
All targets visible from OPs? ___yes ___no
All triggers established? ___yes ___no
Copperhead (CPH) requirements_____
Is CPH available? ___yes ___no
Engagement area developed? ___yes ___no
TF FSO position considerations for redundancy_____

Triggers
Visible both day and night? ___yes ___no
Who is responsible for marking?_____
How can TF assist?_____
Who will supervise emplacement?_____

Obstacles
All covered by direct/indirect fires? ___yes ___no
Commanders critical/priority obstacles_____
Target refinement complete by resp FIST? ___yes ___no
"Drop-dead" time to refine if obstacles are emplaced in a different location_____

Force protection
Commander's critical units _____location_____
_____location_____
_____location_____
Reserve?_____
Main Effort?_____
CFZ refinement; expect GPS locations for BPs when?_____

Land management
Artillery position_____
Impact on repositioning the TF for defense in-depth_____
Impact on repositioning of reserve force_____

Final protective fires (FPFs)
Artillery FPFs allocated_____
Mortar FPFs available_____
Priority for planning FPFs_____

f. As a planning tool, the FSO may want to ask himself the following "4-Ss" concerning time management and time available:

SUNLIGHT - How much daylight do I have available to conduct defensive preparations?

SUBORDINATES - What is the training level of my FISTs, and how familiar are they with the SOP and FS requirements for EA development tasks?

SUPERVISE - How much time do I have to supervise and check preparations? How much responsibility can I delegate to the FSNCO?

SIMPLICITY - Do the Co/Tm FISTs understand the overall concept and intent for the Brigade and TF plan? How much time do I have to rehearse the entire plan with all key players?

g. During the execution phase, the FSO provides redundancy for targets and focuses the fires where the commander deems necessary. The following is a summary of building an engagement area:

☛ Visualization is crucial
☛ IPB drives much of the process
☛ Subordinates must understand when, where, how, and why to engage
☛ Time management often determines success or failure
☛ Plan from the EA looking back
☛ Rehearse, rehearse, rehearse

2. Breaching Operations.

Conducting a successful breaching operation is often the most complex task a unit encounters during a CTC rotation. Breaching operations are *clearly* defined and addressed in doctrinal references **FM 90-13-1, *Combined Arms Breaching,*** and **FM 6-20-40, *Fire Support for Brigade Operations,*** yet it remains the hardest task for maneuver and fire support to synchronize. FM 90-13-1 is probably the best "how to" doctrinal reference manual. Task Force FSOs need to have FM 90-13-1 in the reference library and be as familiar with its content, if not more so, than our maneuver brethren. It provides the FSO with the step-by-step requirements for fire support and breaching operations.

a. **Things the fire supporters need to know:**

(1) The three ***breach organizations,*** and what each is responsible for:

- **!** Support force
- **!** Assault force
- **!** Breach force

(2) The four types of ***breaching techniques*** and the fire support requirements for each:

- **!** In-stride breach
- **!** Deliberate breach
- **!** Assault breach
- **!** Covert breach

(3) The "SOSR," fire support requirements to support ***breaching fundamentals:***

- **!** Suppress
- **!** Obscure
- **!** Secure
- **!** Reduce

b. The FSO's doctrinal knowledge of breaching operations is necessary for mission success. Understanding breaching operations will assist the FSO in developing a commander's concept for fires which focuses on the critical tasks. If the FSO is unfamiliar with doctrine, he may find himself developing a concept for fires which tasks the FS system with too many requirements to accomplish.

c. In accordance with the concept for fires, fire support at task force level (to include mortars) can probably accomplish four to five tasks in support of the breach:

(1) Provide obscuration and suppression fires
(2) Destroy AT weapon systems
(3) Destroy dismounted infantry positions
(4) Delay, disrupt, neutralize repositioning forces
(5) Possibly destroy the CSOP(s), if identified and not in direct fire contact

d. The following comment is often heard from brigade commanders and FSCOORDs at combined arms rehearsals:

"I don't care if we do everything else wrong, we* will *get the smoke in the right place with sufficient volume and we* will *suppress the enemy!"

This comment sends a strong message to fire supporters. If the fire supporters do not understand the importance of breaching fundamentals, such as OBSCURATION and SUPPRESSION, they may develop concepts for fire which do *not* support the commander's intent. The FSO must get the commander to prioritize what exactly he wants fires to do. The FSO must be alert to the commander's planning guidance and must provide the commander with the capabilities and limitations of the fire support system. This requires a thorough understanding of what the *brigade* scheme of fires will accomplish, what assets are available to the task force, and what competing demands there will be with the brigade scheme of fires.

e. A useful tool, or checklist for SOSR fire support planning considerations to support breaching operations may look like this:

SOSR PLANNING CONSIDERATIONS CHECKLIST

1. **Use TF scouts/COLTs to set conditions for the breach prior to arrival of MB.**
2. **Plan target handoff with Bde COLTs.**
3. **Refine targets based on "hard intelligence" and actual POP.**
4. **Target for all wind speeds and directions.**
5. **Position observers with redundancy (plus up the support force).**
6. **Shift POF to the SBF force, then back up SBF force, then assault force.**
7. **Plan and fire smoke to cover movement of SBF force.**
8. **Plan triggers to shift POF from SBF force to assault force as they begin assault.**
9. **Plan triggers to lift/shift fires from obscuration to suppression.**
10. **Plan FSCMs, FAs, RFLs and CFZs at the POP, SBF position and holding areas.**
11. **Position task force SSFO as a redundant observer/executor.**
12. **Focus mortars on AT weapon systems and dismounted infantry.**
13. **Use signals to communicate with conditions have been meant to commit the breach force.**
14. **Plan for additional smoke for mortars and artillery.**

f. FM 90-13-1 states that suppression fires are more critical than obscuration fires. Trends at NTC have shown, however, that if obscuration fires are effective, the enemy *is* suppressed. The use of obscuration fires, then, may be overall more effective than doctrine exhorts.

(1) A standard MRC defense is 1,500 meters wide and 500 meters in depth. The FSO should plan smoke targets, against the S-2's SITEMP, in at least four locations:

(a) Between the enemy and the breach site (POP)

(b) North of the MRC, if winds are from north to south

(c) South of the MRC, if winds are south to north

(d) On top of the MRP to be isolated and obscured in unfavorable wind conditions

(2) Questions the FSO must consider:

(a) Can I fire a 1,000-meter smoke screen?

(b) How many rounds will it require?

(c) How may minutes of smoke are available?

(d) How long will it take to build and sustain?

(e) Can the mortars or mechanized smoke augment?

g. *Reconnaissance and Surveillance (R&S) effort.* Staff integration with the task force S-2 during the R&S effort is vital. Effective scouts and COLTs can infiltrate enemy defensive positions and provide 10-digit grids to vehicle positions. The key is getting the "hard intelligence" into the fire support system and executing these fires at the critical time. The scouts and COLTs can also be effective in setting the conditions for obscuration fires at the breach site by adjusting fire for the actual conditions of wind speed and direction. FSOs should plan for scouts (or a FIST/FO with the scouts) or COLTs to set the conditions prior to the arrival of the SBF force.

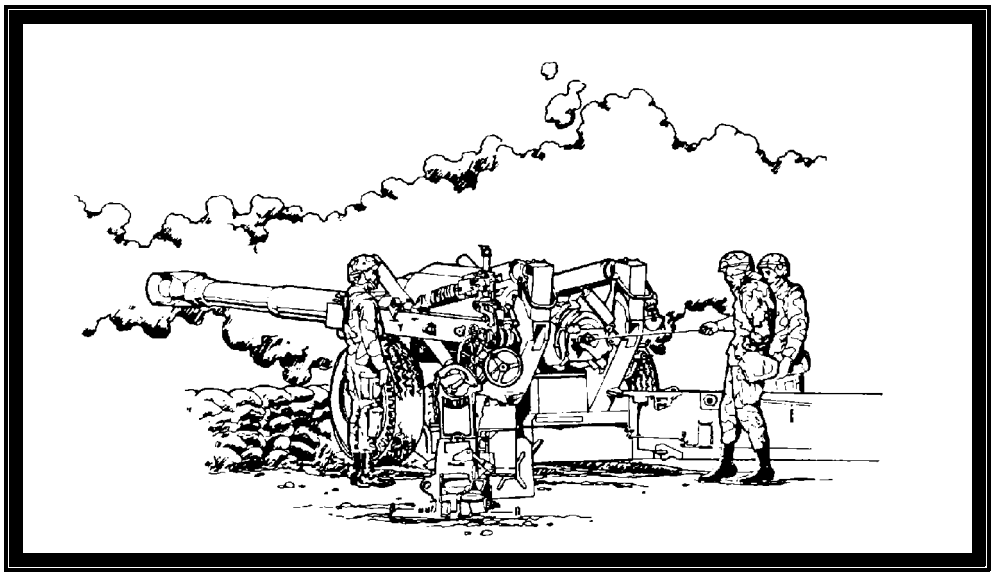
THE FSO MUST FIGHT THE ENEMY, NOT THE PLAN

h. *Command and Control.* The task force conducting the breach operation should have an SOP which defines how the C^2 system will execute the breach. The task force S-3 is normally the breach force commander. He is responsible for ensuring that the conditions of SOSR have been achieved before committing the breach force. ***TACTICAL PATIENCE IS CRITICAL,*** but the maneuver force cannot sit idle and be vulnerable to enemy indirect fires. There also comes a time when the maneuver force can no longer afford to lose momentum. Early commitment of the breach force, without the conditions being set, may lead to the force's demise. The FSO plays an important role during the breaching operations. He provides redundancy and ensures that the plan is adjusted as required to produce the necessary results. ***The FSO must be able to see the battlefield.*** He must be able to monitor the command net and lift and shift fires at the critical time, should the executor at Co/Tm level be unable to execute.

i. *Force Protection.* The FSO must consider the requirements for force protection at the breach site. The enemy phases of fire for defensive operations should focus the FSO's planning requirements for radar zones. CFZs or FSCMs should be planned at the POP, SFB positions, and holding areas. No fire areas (NFAs) should be planned around scouts and COLTs and restrictive fire lines (RFLs) planned for converging forces on the objective.

j. Breaching operations, although difficult to execute, can be incorporated in fire support SOPs and rehearsed at Home Station in a classroom environment. Understanding what the doctrinal fire support requirements are for conducting breaching operations and what the breaching tenant, organization, and fundamentals are, will greatly assist the fire supporters. ***CTCs should* not *be the first place that fire supporters are introduced to FM 90-13-1.***

SUMMARY: To be an integral part of the "team," we as fire supporters must become intimately familiar with maneuver doctrine and, in most cases, be the subject matter experts because of the fact that fire supports maneuver, not vice versa. Lessons learned, TTPs, and information papers are key to improving our understanding of what we can provide our maneuver forces.✪



Some Thoughts on R&S Execution

by CPT Samuel D. White, Jr., Observer/Controller, National Training Center

The planning and execution of the brigade reconnaissance and surveillance (R&S) plan is singularly the most significant event that takes place in the lifecycle of a tactical mission. It is the "glass ball" that absolutely cannot be dropped. Effective R&S will allow the commander to make decisions, execute his plan, and take the fight to the enemy, while the commander who does not have effective R&S is blind, indecisive, and reacts to events on the battlefield that he cannot predict or influence.

Commanders and staffs will all acknowledge the importance and criticality of executing the R&S plan, but precious few of these consumers of intelligence understand a methodology and the level of detail required for R&S planning and execution. These brief notes do not rehash FM 34-2-1. Rather, they outline some tactics, techniques, and procedures (TTP) for R&S planning and execution, following a step-by-step methodology.

1. PRIOR TO PLANNING

Asset Assessment

Prior to planning, the commander and his staff must take stock of the R & S assets available, and even more importantly, they must completely understand the capabilities of these assets and the equipment they employ. The planners must know what the assets are and are not capable of executing. The most important features to understand are the **ranges** at which the asset can acquire a particular target, the **resolution** of the acquisition, and the **accuracy** with which the target can be reported.

EXAMPLE: A **dismounted observation post (OP) equipped with AN/PVS-7Bs, binoculars, a compass, and map can acquire a T-12 anti-tank gun at a maximum range of 2,000 meters during good visibility. The OP will be able to determine if the enemy is dug in or not at a maximum range of about 1,500 meters, and the OP will be able to report their grid to an accuracy of about 250 meters. At night, the maximum acquisition range falls to about 250 meters.**

Various field manuals (FM 34-2-1, FM 34-130) and technical manuals outline planning ranges for equipment. Certainly, the planner must include these planning factors in the planning process. The extra step that the planner should take is to be personally familiar with the equipment.

☛Take the ground vehicular laser location device (GVLLD) night sight out and determine the maximum range to differentiate a T-72 from a BMP or BRDM.

☛How far can an unoccupied tank fighting position be acquired with binoculars, a GVLLD, or the naked eye?

☛At what range can a GSR acquire armored vehicles during a light rain?

The easiest way to answer these questions is for the planner to have operated the equipment himself.

2. DURING PLANNING

STEP 1. *Determine the Need for R&S (or an Observation Post).*

This obviously is the first place to start. These requirements will be identified during the planning. Of critical importance is the determination of what is to be done at the specific Named Area of Interest (NAI) or Targeted Area of Interest (TAI), because this will drive your selection of the asset to task. Give consideration to the degree of resolution and accuracy required of the report at the NAI/TAI.

STEP 2. *Conduct Terrain Analysis.*

This step analyzes the terrain to identify possible OPs. Using TERRA-BASE is an effective tool in this process, but this is time intensive. A good technique is to run TERRA-BASE from the NAI backwards. That is, in the computer, select the NAI as the OP grid. The resultant printout will show all of the possible positions from which to observe the NAI. To save time, select several NAIs and get a printout of visibility from several NAIs. Where the rays cross indicates an OP that can observe multiple NAIs.

STEP 3. *Allocate the Asset.*

Choose the asset to perform the reconnaissance or surveillance based upon the mission performed by the OP. Here, a clear understanding and appreciation of the capabilities of all assets are absolutely vital. If COPPERHEAD is to be executed from the OP, this requires a GVLLD-equipped observer. Use a sapper as the best asset to perform obstacle reconnaissance. A scout can perform surveillance of an NAI to report a change in direction of an attacking Motorized Rifle Battalion (MRB). Whatever the degree of resolution and accuracy required, allocate a suitable asset.

STEP 4. *Select the OP.*

Select the OP from the possible OPs identified during terrain analysis. The mission and capabilities of the OP should be considered as part of the selection process:

- **Angle T for COPPERHEAD**
- **limited visibility ranges for equipment**
- **effects of weather and terrain**
- **the enemy situation**
- **survivability of the OP**

Also, plan alternate OPs should the assets not arrive at their primary position, or if the primary position is untenable.

STEP 5. *Plan the Insertion/Infiltration.*

Plan the insertion or infiltration as if it is a maneuver operation. First, determine the method used, whether by air, mounted, or dismounted. The OP's mission and the enemy situation should drive this decision. Additionally, plan to include routes, checkpoints, dismount points, pickup zones, landing zones, rally points, air corridors, air coordination points, and all other control and coordination measures required for the mission. Create an extraction plan with routes into and out of the positions.

STEP 6. *Make Necessary Coordination.*

If the asset must pass through friendly forces, coordinate the passage. Coordinate for additional assets, if required for the OP mission (e.g., aircraft, trucks, etc.). Coordinate terrain use for the assets to ensure no terrain use conflicts occur.

STEP 7. *Support the Insertion/Infiltration.*

This is the critical step. The insertion is certain to fail if not fully supported. Some areas to cover:

INDIRECT FIRE SUPPORT

Plan fires along the insertion routes for use by the asset as it moves. Cancel the targets when the insertion is complete. Suppression of Enemy Air Defense (SEAD) should be planned to support air insertions. Defensive fires must be planned by the OP to support their survivability and extraction if necessary. Design Firefinder radar coverage to support the insertion, and to protect the asset once in position.

IEW SUPPORT

IEW assets can monitor the enemy's reconnaissance nets during insertion to determine if the insertion has been detected, and to provide early warning to the personnel if they have been compromised. IEW assets can also jam enemy reconnaissance or air defense nets to facilitate insertion.

LOGISTICS SUPPORT

Develop and resource a resupply and medical plan. Too often units send assets forward with little thought made to sustain them. Establish caches and stock them with critical supplies. Medical support may need to accompany the asset, or centralized medical support positioned to provide care for a number of our R&S assets.

3. EXECUTION

a. Execution begins with the preparation of the assets to execute the mission. Thoroughly brief, inspect, and rehearse your R&S assets, like all members of your organization. This is often the downfall of the plan. ***Develop a benchmark for these actions, to include a standard briefing form that gives the R&S assets the required information***. Develop pre-combat inspection (PCI) checklists based on the type of mission and the method of asset insertion. The PCI checklist for air insertion may be different for dismounted insertion. A technique may be to develop a number of standard loads depending on the insertion method, mission, and distance to travel.

b. The insertion, occupation, and survivability of the position are all tasks in which the skills and training of soldiers will pay off. There are a number of very good references that provide techniques for these actions (ST 21-75-3, and the Ranger Handbook). The critical aspect is the soldier training. Our soldiers must have the necessary skills to execute their mission before they arrive on the battlefield.

IN SUMMARY:

While commanders and staffs agree that successful R&S execution is essential for tactical success, few follow a systematic methodology to increase their probability of success. The TTPs outlined in this article provide a step-by-step methodology for the brigade staff to use during the command decision process to focus R&S planning, preparing, and execution. It ensures the R&S effort is synchronized across the brigade so that it can achieve its purpose, and so provide the commander with the intelligence information he needs to make decisions, execute his plan, and take the fight to the enemy.✪

Clearance of Fires

by **CPT Samuel R. White, Jr., Observer/Controller, National Training Center**

The Problem

Experiences at the NTC reveal that most heavy brigades do not employ procedures that ensure positive clearance of fires. In fact, our doctrine contains no standardized clearance of fire procedure for a brigade. Units attempt a variety of methods at the NTC, the most common of which are described here:

a. The Brigade Fire Support Element (BDE FSE) consults the Bde S3 battle captain, who looks at the S3 situation map. If no friendly "sticky" icon is present at the grid, the battle captain pronounces the grid "clear" (this is the most common technique used by brigades to clear fires).

b. The Task Force Fire Support Officer (TF FSO) calls the observer and asks if he can positively identify the target as enemy. If the answer is yes, the grid is declared "clear."

c. The Bde FSE calls the FSE in whose zone or sector the fires plot and requests the fire mission be cleared. The subordinate FSE then *either* consults their situation map *or* consults the TF S3's map. Again, if no "sticky" icon is posted at the grid in question, the mission is declared "clear."

The Result

None of these procedures are completely effective. Over the past years, the result of ineffective clearance of fires has yielded an unacceptable number of fire support-related fratricide incidents per rotation. The result: loss of combat systems and soldiers. Additionally, a high percentage of artillery fire missions per rotation are determined to be "close to friendly," i.e., less than 500 meters from friendly soldiers. Although no casualties occurred in the "close to friendly" fire missions, the high percentage indicates a lack of positive clearance of fire procedures. However, using *live* munitions on another battlefield, may produce different results.

A Solution

1. ***Maneuver Control Measures:*** The first step in effective clearance of fires is the use of maneuver control measures. Both TF and Bde S3s should be reminded of the effect on clearance of fires if subordinate maneuver units are not given zones or sectors (i.e., no boundaries established). Since boundaries serve as both permissive and restrictive measures, the decision not to employ them has profound effects upon timely clearance of fires at the lowest possible level. The higher headquarters (probably brigade) now has the requirement to coordinate all clearance of fires short of the Coordinated Fire Line (CFL), a very time-intensive process. ***Whenever possible, use boundaries to allow the unit that owns the ground to engage targets quickly, requiring coordination and clearance only within that organization.*** Boundaries also neatly divide battle space and clearly define responsibility for clearance of fires. An important point on maneuver control graphics: staffs must be knowledgeable regarding the different maneuver control measures and their impact on clearance of fires. For instance, boundaries are both restrictive and permissive; corridors are restrictive, while routes, axis, and directions of attack are neither.

2. ***Fire Support Coordination Measures:*** The next step in effective clearance of fires is to properly use fire support coordinating measures (FSCMs). Judicious recommendation to the division FSE on the placement of the CFL within the brigade zone or sector is extremely important. ***The CFL should be as close to the Forward Line of Troops (FLOT) or Forward Edge of the Battle Area (FEBA) as the brigade can track***. In other words, place the CFL just beyond the last point on the ground where units can accurately locate the FEBA/ FLOT. Use No Fire Areas (NFAs) to protect forces beyond the FEBA/FLOT, and, therefore, beyond the CFL, such as Combat Observation Lazing Teams (COLTs) and scouts. If units cannot accurately track forces beyond the FEBA/FLOT (i.e., to establish NFAs), push the CFL beyond the point these assets would reasonably locate. **NOTE:** *CFLs only apply to surface-to-surface fires. It is doubtful that the Corps Fire Support Coordination Line (FSCL) will be shallow enough to facilitate Close Air Support (CAS) attacks for the brigade or task force. Therefore,* ***the units owning the ground must clear all CAS missions, regardless whether long or short of the CFL.*** *Units should establish NFAs on all forces forward of the CFL. Send these NFAs to higher, lower, and adjacent unit headquarters. Establish NFAs on assets short of the CFL if those assets are not task-organized to the force in whose zone or sector they are positioned.* **EXAMPLE:** ***Bde COLTs in TF 1-1's sector; TF 1-1 scouts in TF 1-2's sector, etc.***

3. ***Pre-Clearance:*** Next we must make a determination as to which fires short of the CFL will be considered precleared. In some very specific instances, units can clear fires during the planning phase (preclearing). Again, *these are very specific instances*, as described here:

a. **Fires into a planned call for fire zone (CFFZ) resulting from a radar acquisition from that planned CFFZ. The CFFZ must have been planned in advance and published in the RDO.** Also, rehearse the CFFZ in advance. This preclearing does not apply to fires resulting from a violation of a critical friendly zone (CFZ) because, unlike a CFFZ that targets a specific enemy artillery formation at a specific location, a CFZ generates a fire mission regardless of the location of the enemy artillery, and is, therefore, impossible to predict.

b. **Fires on a preplanned target, with a definable trigger, against a specific enemy, and according to the scheme of fire support.** In other words, if we are executing the fire support plan, that specific target in the plan can be considered pre-cleared. If we shift from a target or known point, take active measures to clear these fires.

c. Prior to pre-clearing any fire missions, **the maneuver commander must do a fratricide risk assessment** to determine if his unit is trained to a level that allows pre-clearing fires. Since this is not positive clearance of fires, it is absolutely vital that commanders, not FSOs, determine that this technique will be employed.

4. ***Clearance of Fires Battle Drill.***

a. Even if all of the measures outlined above are taken, there will be times when fires must be cleared. This procedure must be a battle drill in all command posts and operations centers. ***Do not clear fires off situation maps! Situation maps will never be accurate enough. No matter how much we pride ourselves on battle-tracking and situational awareness, our maps will be wrong or considerably behind reality.*** A call must go out on radio nets requesting from the force on the ground clearance of a particular grid. This radio call must be a two-pronged attack: A call on the fire support net, simultaneous with a call on the command or Operations/Intelligence (O/I) net. The command net is preferred because more stations monitor that net, but reality says that it will more than likely be the O/I net.

EXAMPLE: If a brigade COLT wants to fire an unplanned fire mission short of the CFL in TF 3-19's zone, the call would go out on the brigade O/I ***and*** the brigade fire support nets:

"TF 3-19 FSE/TOC, this is Bde FSE/ TOC. Request clearance on grid NK395176."

Within TF 3-19, the process is repeated on the task force command or O/I nets and the heavy mortar net:

"Guidons, this is TF 3-19 TOC/FSE. Request clearance on grid NK395176."

This request, received at the company command post and the company FSO's FIST-V, is quickly answered and sent back to the task force TOC/FSE and then back to brigade as a cleared fire mission. **Treat this as a battle drill**, and the entire process takes surprisingly little time.

b. There are several scenarios that may require clearance of fires:

(1). **Fires across one task force boundary into the zone/sector of another task force**. The most effective method to clear fires in this instance is for the brigade to authorize direct clearance of fires between task forces. That is, TF 3-19 can call directly to TF 2-19 to clear a fire mission. This is best done on brigade O/I and brigade FSC nets. The brigade TOC will monitor the action, and will get involved only to facilitate coordination. (i.e., communications between task forces are poor, etc.)

(2). **Fires by a brigade observer short of the CFL and into a task force zone/sector** (such as COLT, Q36, Military Police (MP), Target Acquisition and Reconnaissance Platoon (TARP)). Conduct this according to the example above.

(3). **Any fires by anyone short of the CFL if task force zones/sectors are not established** (as in a defense from a battle position mission). This is best accomplished as outlined above, except that the brigade will announce guidons calls to the force as a whole. This method obviously will take time, and highlights why every effort should be expended to make use of boundaries, FSCMs, and pre-clear fire missions.

FINAL THOUGHTS

Maneuver commanders clear fires. Certainly they may delegate coordination responsibility to their fire support elements, but the final yes or no answer must come from commanders. Fire supporters at all levels must assist their supported maneuver commander and maneuver staff in developing battle drills to clear fires. The tactics, techniques, and procedures presented here are effective and will work. They may be the basis for a brigade or task force battle drill in your unit.✪

BATTLE COMMAND
at the Firing Battery Level

by CPT Noel T. Nicolle, CPT C. Phil Royce, CPT Scott A. Westley, and CPT Thomas L. Kelly, Observer/Controllers, National Training Center

"To command is to direct." --FM 100-5

FACT:

☛ **FM 100-5 does not address company- or battery-level leadership.**

ISSUE:

☛ **How do you, the battery commander, "direct"?**

TECHNIQUES:

1. Assign tasks within your battery just as a higher level commander assigns tasks.

! Be prepared to contend with the METT-T conditions as with any other unit preparing for combat.
! Be able to prioritize tasks and allocate resources so your battery can properly execute its mission.
! Direct actions that will prepare your unit for combat operations.
! After you receive the field artillery support plan (FASP) and consult with the battalion staff, you must translate the battalion requirements into an executable battery order.

2. Usually, there is little time to prepare for a mission, so you must be organized and proactive. If you wait to develop the entire battery order from scratch after returning from battalion, you will waste a large amount of your soldier's valuable preparation time.

- **! You must allow your soldiers maximum time to prepare for the mission.**
- **!** Arrive at the battalion tactical operations center (TOC) prior to the FASP brief and familiarize yourself with the plan.
- **!** If you understand the mission and receive guidance on areas that are unclear before you leave the orders brief, you will have at least 75 percent of your battery order complete.
- **!** With strong standing operating procedures (SOP) and battle preparation drills for basic field artillery missions, you can complete the other 25 percent of your order shortly after returning to your battery.

3. Develop several task lists, or Pre-Combat Checks/Pre-Combat Inspections (PCC/ PCI) lists, which correspond to likely artillery missions.

- **!** Prioritize your tasks based on METT-T.
- **!** Allocate your scarcest resource--**TIME**--by using a timeline.

". . .decide when and how to make adjustments." --FM 100-5

4. Keep your finger on the pulse of your battery's preparation efforts in order to make any necessary adjustments. Your presence in the battery area is critical while your soldiers are preparing for combat. You cannot afford to be away from your unit the entire day while conducting area reconnaissance.

- **!** Conduct an initial map reconnaissance and then verify your assessment with personal route and position reconnaissance.
- **!** Have gunnery sergeants fully prepare subsequent and alternate positions once selecting the locations.
- **!** Personally supervise your unit's preparation efforts to ensure critical tasks are focused and completed to standard.

"Command occurs from the location of the commander." --FM 100-5

5. During the battle, position yourself at one of these locations:

- **!** at your battery operations center (BOC).
- **!** on the gun line.
- **!** overlooking the battery area.

From each of these locations, you will be able to make decisions that allow your battery to continue executing missions even during adverse conditions such as mass casualty evacuations, chemical attacks, or ground and air attacks. Your presence is critical so that the battery will respond correctly to threats under pressure and still continue the mission. You ***cannot*** successfully command your battery during the battle from outside the position area (PA). It is true you will need to take the advance party forward to a new PA in the offense. However, once there, you should give initial guidance to the gunnery sergeant and quickly return to the battery. Platoon leaders can do an excellent job of supervising the battery's effort in your absence, but you should not expect them to make critical decisions without your guidance.

SUMMARY:

- ☛ Follow the tenets of FM 100-5.
- ☛ Direct, prioritize tasks, allocate resources, and adjust to changes.
- ☛ During battle, ***command*** your battery.

The success of the mission depends on
". . .the will embodied in the commander to accomplish the mission. "

Airspace Coordination Procedures

by CPT Samuel R. White, Jr., Observer/Controller, National Training Center

☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆

Brigades often do not establish procedures for Army Airspace Command and Control (A^2C^2), resulting in ineffective airspace coordination and hazardous situations for rotary-wing aircraft.

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Brigades commonly use rotary-wing aircraft for:

- ➤ air assaults
- ➤ reconnaissance and surveillance
- ➤ (R&S) asset insertions
- ➤ resupply
- ➤ command and control

The brigade's effort to execute A^2C^2 is sometimes minimal to nonexistent. The brigade staff:

- ➤ does not normally have a formal A^2C^2 cell
- ➤ is not at all versed in A^2C^2 procedures
- ➤ does not make any effort to coordinate the use of airspace

Routinely, the burden of A^2C^2 falls upon the Aviation Liaison Officer (LO), with poor results.

Brigades must establish procedures for A^2C^2. Each member of the staff must understand their responsibilities in A^2C^2 planning.

The following is a step-by-step methodology for A^2C^2.

Step 1: **Identify the need for army airspace. For example, the brigade FSO may identify that Combat Observation Lasing Team 2 (COLT) is to occupy OP 3, and the targeting team determines that COLT 2 will be air-inserted. The need for A^2C^2 has just been identified. The staff now begins planning for A^2C^2.**

S3: **Allocates initial airspace for the insertion (air corridors, pickup zones (PZs), landing zones (LZs), etc.).**

AVN LO: **Works in conjunction with the S3 to develop air corridors based on the mission, aircraft type, enemy situation, etc.**

S2: **Identifies threats to the aircraft and recommends modifications to air corridors if necessary.**

FSO: **Identifies airspace control measure's affect on fire support and recommends changes.**

ADA LO: **Plan changes to Weapons Control Status (WCS) based on the insertion.**

ALO: **Plans for coordinating altitude and separation distances.**

Step 2: **S3 Air finalizes coordination with the A2C2 team, and ensures:**
all graphic control measures are included on the brigade graphics.
necessary coordinating instructions are in the brigade OPORD.

Step 3: **S3 Air finalizes A^2C^2 coordination with higher headquarters and adjacent units.**

STEP 4: **S3 Air continues to coordinate airspace throughout the preparation phase for the mission. Coordinates with the A^2C^2 team as changes or refinements occur.**

STEP 5: **A^2C^2 is rehearsed during the combined arms rehearsal. A^2C^2 is also rehearsed at all subordinate rehearsals as required.**

STEP 6: **Execution--some tips:**

Open and close air corridors only while aircraft are transiting the corridor. Leaving the corridor in effect continuously will needlessly restrict fire support.

Plan aerial observation posts and air battle positions off the air corridor.

Only open sections (between aerial check points) of air corridors as the aircraft transit that section.

Plan air corridors behind or to the flanks of artillery batteries and mortar platoons/ sections.

Consider task force mortar platoons/sections when planning A^2C^2.

Air corridors are maneuver graphics; include them on the brigade graphics.

Ensure indirect fire support assets are aware of the coordinating altitude in air corridors.

Implement NFAs on aerial OPs.

Aircraft must report aerial check points (ACPs) when transiting air corridors.

INDIRECT FIRES *AND* THE COMBINED ARMS TEAM

★★★★★★

(TASK FORCE FIRE SUPPORT PLANNING METHODOLOGY)

by LTC Harry L. Leiferman, Senior Mechanized Infantry Task Force Trainer (Scorpion 07)

One of the trends reinforced with the transition to brigade operations at the National Training Center is the inability to synchronize indirect fires and maneuver to achieve the effects desired from combined arms operations.

The task force commander is not getting timely, accurate indirect fires.

There have been a number of reasons identified, some of which are related to the training level of the field artillery staffs and firing units. However, is has become more and more evident that part of the problem is directly related to the task force commander's inability to understand his role in fire support planning as well as the role of the task force as an executor of the brigade scheme of fires during brigade operations.

"Army forces prefer to fight as a combined arms team. . .producing effects that are greater than the sum of the individual parts. The combined arms team strives to conduct fully integrated operation in the dimension of time, space, purpose, and resources. . . . The goal is to confuse, demoralize and destroy the enemy with the coordinated impact of combat power. . . . The sudden and devastating impact of combined arms paralyzes the enemy's response, leaving him ripe for defeat. . . . The application of combined arms in this manner is complex and demanding. It requires detailed planning and violent execution by highly trained soldiers and units who have been thoroughly trained."

-- FM 100-5

One lesson we have learned with the brigade operations is that time for planning at the task force level is very limited. A task force can no longer plan on having sufficient time for the deliberate planning process. This is equally true for planning indirect fires.

This article offers a step-by-step approach to task force fire support planning, which is intended to:

> ***explain*** what the task force should expect from brigade as "provider" of indirect fires.
> ***clarify*** the role of the task force and task force commander in fire support planning.

BRIGADE'S ROLE: "PROVIDER"

The brigade plays a vital role in task force fire support planning and execution. With the exception of the task force mortars, the brigade is the "provider" of indirect fires. Therefore, before we can accurately clarify the task force role in executing the brigade scheme of fires, it is necessary to quickly review the role of the brigade.

The brigade develops a synchronized brigade scheme of maneuver and brigade concept of fires, translating that into a scheme of fires.

There is no clear doctrinal definition for either *concept of fires* or *scheme of fires.* For this article, *concept of fires is the allocation of fire support assets to achieve a specific effect on an enemy formation with a visualized purpose and end state to support the scheme of maneuver.* The concept of fires is expressed in terms of task, purpose, method and end state. This will be discussed in more detail later in this article. The *scheme of fires is the detailed sequencing of fire support events that must occur to achieve the end state articulated in the concept of fires.* This will be discussed in more detail later in this article.)

The brigade concept usually assigns fire support tasks to subordinates. As part of the concept, it is brigade's responsibility to provide indirect fires to the task force close/direct fire fight.

These fires are provided for a specific period of time and a specific purpose. The brigade must clearly specify when fires will transition to the task force and when the task force will lose them.

Refinements to the brigade scheme of fires from subordinate units must also be integrated.

Finally, the brigade integrates the movement of artillery units with the scheme of maneuver.

BRIGADE ROLE IN FIRE SUPPORT PLANNING

Synchronize the Brigade concept of fires with Brigade maneuver.
Develop Brigade scheme of fires and assign tasks to subordinates.
Provide indirect fires for task force close/direct fire fight. (Specified period of time and purpose - clearly defining when fires transition to the Task Force close/direct fire fight and when the Task Force will lose fires.)
Integrate refinements from subordinates.
Integrate movement of artillery units with scheme of maneuver.

THE TASK FORCE ROLE: "EXECUTOR"

The task force is the ***"executor"*** of their portion of the brigade scheme of fires. With the exception of the task force mortars, the brigade "owns" the indirect fire assets. The artillery is normally in direct support (DS) of the brigade. Therefore, ***the task force must clearly understand not only the brigade concept of fires and how it is synchronized to support the brigade maneuver, but also the task force's role in the brigade scheme of fires,*** so they can execute their portion. The following process is the essence of the step-by-step approach that will be discussed in more detail later.

1. With understanding of the brigade concept and the task force's role, the task force can then develop its own ***concept of fires.***

The concept normally involves assigned tasks from the brigade scheme of fires and targets to support the task force close/direct fire fight.

It may require only the refinement of a brigade target, or it may require the task force to submit new targets to support the task force commander's scheme of maneuver.

2. The task force must plan the synchronization of mortar fires with the scheme of maneuver, integrate the mortars into the scheme of fires and synchronize their movement with the scheme of maneuver.

3. The task force develops a ***scheme of fire*** to support both those tasks assigned by brigade and those targets developed by the task force.

4. The task force issues the ***fire support plan*** to its subordinates. Bottom-up target refinement to support the company/team commander's scheme of maneuver will be incorporated.

5. The task force forwards its ***concept of fires and target refinements*** to the brigade as soon as possible to ensure it is fully integrated with, and does not desynchronize, the brigade scheme of fires.

6. The plan ***must be rehearsed*** to ensure it is clearly understood.

TASK FORCE ROLE IN FIRE SUPPORT TRAINING

Understand the integration of Brigade maneuver and fires.

Understand Task Force role in Brigade scheme of fires/maneuver.

"*Executor*" of their portion of Brigade scheme of fires.

Develop Task Force concept and scheme of fires.

Integrate/refine Brigade targets for close/direct fire fight.

Plan for the synchronization of Task Force Mortars with the scheme of fires and their movement with the scheme of maneuver.

Bottom-up refinement from company/teams.

Forward Task Force concept of fires and target refinements to Brigade.

Rehearsals.

NOTE: ***Much of the following discussion, as well as our discussions later on the step-by-step approach to indirect fire planning, relates directly to work being done at the National Training Center on the abbreviated planning process.***

TASK FORCE COMMANDER'S ROLE: "SYNCHRONIZER"

The key role of the task force commander in indirect fire planning is synchronization of indirect fires with the scheme of maneuver.

Fires and maneuver must be considered simultaneously

. . ."Synchronization is arranging activities in time and space to mass at the decisive point. . . . Synchronization thus takes place first in the minds of commanders and then in the actual planning and coordinating of movement, fire, and support activities."

--FM 100-5

Commanders must first decide precisely what they want their fires to accomplish. If the commander thinks maneuver first and then tries to add fires later, he will have difficulty.

Once he has decided what he wants fires to accomplish, the commander must take an active role in the development of the task force concept of fire support. He must clearly articulate *to his staff,* not just his fire support officer":

the ***"sequenced" critical fire support tasks*** in terms of the desired effects for each target;

the ***purpose*** of each target as it relates to the scheme of maneuver;

the ***method*** he would like to use to achieve the desired effects;

the ***end state*** he wants for target.

The task force commander must also ensure that mortar fires are clearly synchronized with the scheme of maneuver and concept of fires to include their movement.

It is worth noting here that once the task force scheme of fires is finalized, it is essential that the task force commander clearly articulate to the brigade commander and brigade staff the importance of those fires to the task force scheme of maneuver and the impact on mission success if those fires are not received. The fact is, if a task force critical fire support task is not also included as a brigade critical fire support task, the likelihood of getting the target fired by artillery or CAS is greatly diminished.

TASK FORCE COMMANDER'S ROLE IN FIRE SUPPORT PLANNING

Synchronize indirect fires with maneuver.

Clearly articulate the Task Force concept of fires.

Articulate for each target the "sequence" of
- **Task in terms of desired effects;**
- **Purpose for each target (as it relates to maneuver);**
- **Method;**
- **End state.**

Synchronize mortars with concept of fires and the scheme of maneuver.

Ensure the Brigade Commander/staff understand the importance of Task Force fires to scheme of maneuver.

Observations at the National Training Center indicate that many commanders are unable to clearly define what they want their fires to do and cannot visualize their synchronization with maneuver. Of those that can, many cannot articulate their intent for fires to their staff. If they can, the level of training and experience of their staffs, and particularly their fire support officer, is not sufficient to translate that guidance into a concept of fires. It is clear that, until time permits, more deliberate planning, or until the staff and FSO become better trained, the task force commander must take a more active role in developing the concept of fires. He cannot afford to divorce himself from this process.

Now that we have discussed the role of the commander, as well as the role of the brigade and task force staffs in fire support planning, what follows is one method of indirect fire planning at the task force level. Again, it is important to note that this methodology is tied to the abbreviated planning process and the commander's role in abbreviated planning.

STEP 1: MISSION ANALYSIS BRIEF.

To make the right decision about the employment of his indirect fires, the commander must get certain information from his fire support officer. This is normally done during the Mission Analysis Brief. The key information he must receive includes:

a clear understanding of the brigade scheme of fires as those fires relate to the maneuver plan, and

a clear understanding of the task force role as an "executor" of their portion of the brigade scheme of fires and clear picture of indirect fire assets available.

MISSION ANALYSIS BRIEF
(FSO INPUT)

Bde Scheme of Fires
- **Higher Cdr's Concept of Fires**
- **Allocation of FPFs/Priority Tgts**
- **Current and On-order FSCMs**
- **Specified and Implied Tasks**
- **Limitations**
- **Priority of Fires**

FA Org for Combat
- **Location**
- **When in Position**

Assets Available and When
- **FIST Status**
- **Mortar Status/locations**
- **CAS Allocations**
- **COLT Allocation/locations**

Current Ammunition Status
- **No. Killing Missions Available (FA/MTR)**
- **Smoke (Length/duration)**
- **FASCAM (No. Disrupt, Fix, Turn, Block/release Auth)**
- **No. of COPPERHEAD**

STEP 2: SPECIFY THE CONCEPT OF FIRE SUPPORT.

(*NOTE:* One could argue that this step should be the "commander's intent for fire support" as part of the commander's planning guidance to his staff. This is probably true above the task force level where you have a planning staff and a FSCOORD and can effectively plan and execute simultaneously. However, at the task force level, you do not have a planning cell and most FSOs do not have the experience of fire support planners at higher levels and are unable to translate commander's intent for fire support into an effective, synchronized concept of fires. Couple this with limited planning time and the result is a requirement for the commander to specify the "concept of fires" as the next step rather than simply providing his intent for fires. Time and training permitting, however, "commander's intent for fire support" could be the second step at the task force level.)

At the conclusion of the mission analysis brief to the task force commander, the commander gives planning guidance to the staff. The commander specifies his maneuver course of action assigning maneuver task and purpose to subordinate units. To ensure synchronization of indirect fires with maneuver, rather than giving only his intent for fires, he must specify his concept of fire support. He does this by clearly articulating his **"sequenced critical fire support tasks."** ***There is no clear definition of a critical fire support task.*** However, from a maneuver commander's perspective, it is a fire support task that, if not properly executed, will have a severe impact on the ability to accomplish the maneuver task it supports. It is imperative that the commander personally establish the task and purpose for each target. The FSO can assist the commander in establishing the method and end state. Critical fire support tasks should be expressed in terms of the following:

the ***TASK:***	Although **FM 6-20-10, *The Targeting Process,*** discusses tasks and purpose in terms of disrupt, limit and delay, at the maneuver task force level, it is more appropriate for the task force commander to state his tasks in terms of the effects he desires. . . Suppress, Destroy, Obscure, Screen. These effects should be related to a specific enemy formation and/or function.
the ***PURPOSE:***	of the fires as they relate to the scheme of maneuver. This is how the commander synchronizes indirect fires with maneuver.

the ***METHOD:*** to achieve the desired effects (FA, mortars, CAS). At this point, the commander may have a preference for delivery of indirect fires. He may specify that he wants to use his mortars; he may specify that his desire is to use artillery; or CAS or he can leave developing the method to his FSO. However, with the exception of specifying mortars, he must "negotiate" with brigade for artillery or CAS. The method may also be refined during the wargame.

the ***END STATE:*** as it relates to the enemy or friendly formation or function. End state at the task force level is often the accomplishment of the task. However, a statement of the end state is still desired and can be developed by the FSO.

and critical fire support tasks should be ***SEQUENCED:*** to clearly prioritize the order in which the targets should be fired, based on the scheme of maneuver. If the scheme of maneuver requires more than one critical fire support task to be fired at a time, then the commander may have to "apportion" his assets (FA, mortars, CAS) to meet all the needs. This "apportionment" normally occurs at brigade level.

COMMANDER'S CRITICAL FIRE SUPPORT TASKS (AN EXAMPLE)

TASK No. 1: CONTINUOUSLY SUPPRESS THE ENTIRE MRC FOR 12 MINUTES.

PURPOSE: **Allow both CO/TMs to occupy their support by fire positions without taking effective enemy direct fire**
METHOD: **FA fires on a group target by one bn of artillery**
END STATE: **Both CO/TMs in their SBF positions without losses to enemy direct fires**

TASK No. 2: SCREEN THE POINT OF PENETRATION FROM THE TWO SOUTHERN DEFENDING ENEMY PLATOONS.

PURPOSE: **Prevent enemy from engaging the breach force with direct fires until the breach is complete (approx 30 minutes)**
METHOD: **Mortar smoke initially, followed by generated smoke if wind conditions permit**
END STATE: **Two southern MRPs unable to bring effective direct fire on the breach force until the breach is complete**

It may be worth noting here that not all critical fire support tasks have to be firing tasks. For example, the insertion of an observer to have eyes on a target may be so important that the commander specifies it as a critical fire support task. Another example may be the use of CAS or nonlethal EW fires.

STEP 3: WARGAME - DEVELOP THE SCHEME OF FIRES.

The sequenced critical fire support tasks specified by the commander are a key component of the wargame. Proper wargaming will enhance synchronization with maneuver. The only thing unique is this methodology is again related to abbreviated planning, specifically the commander's involvement. When time is limited, as it is for abbreviated planning, the commander should participate in wargaming with his staff. During the wargame, the commander and fire support officer may need to make minor adjustments to the concept of fires. What the wargame should accomplish is flushing out the method of achieving the desired effects - the scheme of fires. This scheme of fires must be "nested" in the brigade scheme of fires, focused on a few key targets/critical fire support tasks, and link observers to firing tasks, firing units, and an established schedule of fires. The wargame will refine the target locations, means of delivery, target triggers, observer locations, movement and positioning for the mortars, CFZs, NFAs, and fire support coordination measures (FSCMs). The two key products that are developed by the fire support officer during the wargame should be the target overlay and fire support execution matrix. The target overlay is often incorporated with the maneuver overlay. The scheme of fires must be forwarded to brigade to ensure they incorporate the task force fires into the brigade concept. The fire support plan must also be disseminated to the task force.

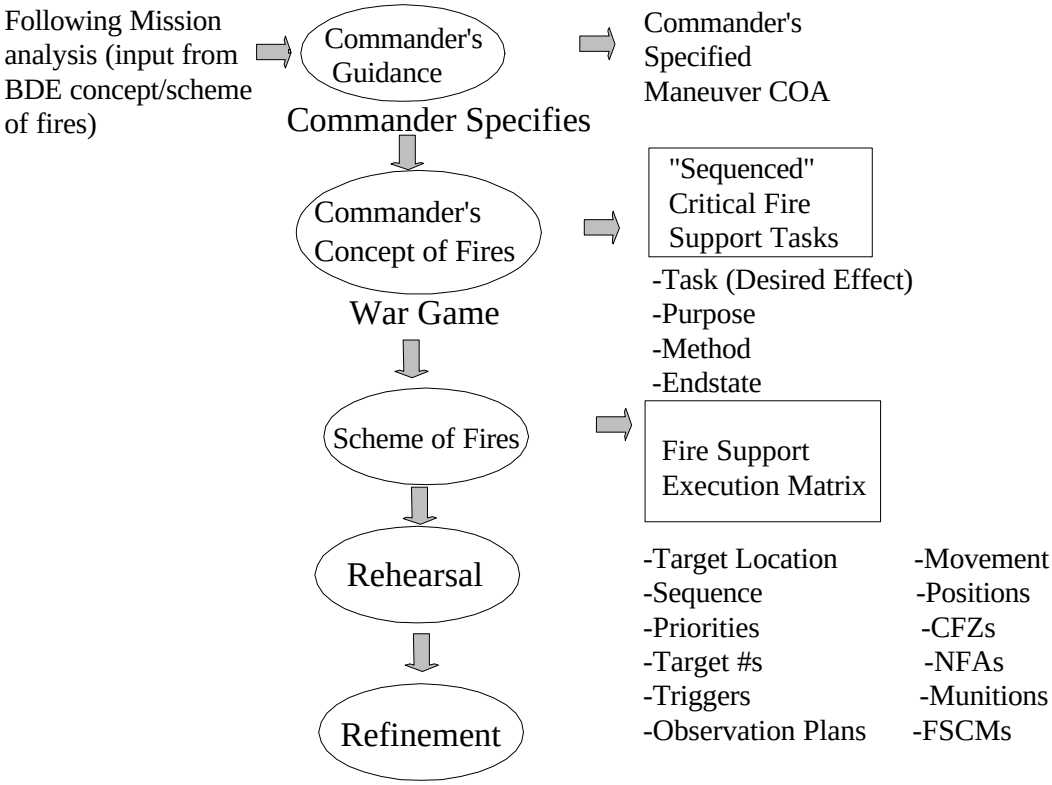
STEP 4: REHEARSALS.

Rehearsal of the fire support plan is the next critical event. The bottom line to all this planning is ensuring that it is clearly understood by those that must execute it (subordinate co/tms, observers, etc.) and those that must support with fires (brigade, firing units, mortars). The most important task force rehearsal is the combined arms maneuver rehearsal. This rehearsal must integrate fully the fire support plan. The task force personnel should also participate in the brigade fire support "technical" rehearsal to ensure the task force targets are incorporated and synchronized in the brigade scheme of fires. Time permitting, the task force should also conduct a fire support rehearsal.

STEP 5: REFINEMENT.

A plan is just that. . .a plan. As new information is gained on the enemy, the fire support plan must be updated. The staff must ensure that changes are coordinated and disseminated. It is also a proven technique to establish a "target cut-off time." This is a time after which any change to the fire support plan must be approved by the commander responsible for the target. If a refined target location is determined after the target cut-off time, shoot a grid mission. The task and desired effects, purpose, and end state should not change.

Fire Support Planning Methodology



Before concluding this paper, there are a few issues worthy of discussion that impact on task force firing planning and execution.

HIGH VALUE TARGETS/HIGH PAYOFF TARGETS: (High Value Target (HVT) - a target whose loss to the enemy can be expected to contribute to substantial degradation of an important battlefield function. High Payoff Target (HPT) is a target that, if successfully attacked, will contribute to the success of our plan.) At the task force level, there seems to be very little utility in identifying HVTs or HPTs. Normally, they are designated by the brigade commander and incorporated into his concept and scheme of fires. The issue with HVTs and HPTs is their synchronization with the "sequenced" critical fire support tasks. Oftentimes at the expected point in the battle when the commander wants a critical fire support task fired to support his scheme of maneuver, someone calls HVT/HPT, and because so designated, the guns shift off the target in order to fire somewhere else. If the commander is going to designate and fire HVTs and HPTs, they have to be carefully synchronized with critical fire support tasks and it must be clearly understood by all observers that the target may only be a HVT/HPT during a specified window in the battle. HVT/HPTs must not undermine the sequenced critical fire support tasks

PRIORITY OF FIRES: (The organization and employment of fire support means according to the importance of the supported unit's mission.) Worthy of discussion is its relationship with the commander's sequenced critical fire support tasks. If indirect fires are properly synchronized with maneuver and the commander has sequenced those critical fire support tasks to support maneuver, then it seems priority should go to firing those targets regardless of who has priority of fires. One could argue that if the commander has developed a scheme of fires properly, then the right observer will have priority when the commander wants to fire the critical tasks. The key has to be every observer and leader understanding the concept of fires - the sequenced critical fire support tasks - and sticking to that concept. It is especially important for the various artillery FDC and fire control officers to understand this and not deviate from what the commander wants. However, priority of fires remains a valid concept that should allow anyone to receive fires as long as no critical fire support task is being fired.

OBSERVER PLANNING: The issue at the task force level is who owns and positions the FISTs, the task force or the company/team commanders. The company/team commander needs them to assist in his fire support planning and to trigger targets assigned to him from the task force scheme of fires. The task force commander wants to position them to ensure they are in the proper positions to call the targets he wants. Observations at the National Training Center would offer this - the amount of certainty or uncertainty will dictate the level of control of the FISTs. In a movement to contact, the task force is more likely to leave control of the FIST with the company/team because the situation is unclear. In the defense, where the targets are fully synchronized with the task force scheme, the task force is more likely to dictate where the observers are positioned. In a deliberate attack, the task force may take the observers away from the breach force company/team to provide redundancy at the point of penetration but leave the FISTs with the rest of the teams.

CLOSE AIR SUPPORT: Simply stated, CAS is another means of indirect fire support available to the brigade and task force. The commander, first understanding the capabilities and limitations of close air support, must synchronize it with the fire plan to support the scheme of maneuver. The capabilities and limitations (windows for use/targets/observers) have some unique challenges that must be considered, but the commander must plan his CAS together with the maneuver the same way as his other indirect fires. It is conceivable at the task force level that CAS may be allocated or a CAS target assigned from brigade as part of the scheme of fires. More likely, however, CAS will be "handed-off" to the task force when brigade has no viable targets. If this happens, the task force must have a plan that synchronizes it with maneuver and their concept and scheme of fires. The task force must also consider the ETAC in the observer plan.

✯ ✯ ✯ CONCLUSION ✯ ✯ ✯

This paper is not designed to solve all the challenges of getting timely and accurate indirect fires at the task force level. Hopefully, it has addressed some of the issues that are encountered at the National Training Center and highlighted the emerging observations from brigade operations. The step-by-step approach to fire support planning is one way to approach the challenge of getting the effects of combined arms operations. Whatever method used, the key is synchronization with maneuver, commander involvement in planning and refinement, and ensuring that the plan is well-rehearsed and understood by every observer, leader, and firing unit.

THE FIRE SUPPORT REHEARSAL

by CPT Samuel R. White, Jr., Observer/Controller, National Training Center

Some challenges facing fire supporters during tactical operations is the conduct of fire support rehearsals. Time constraints and frequent changes to the plan team up to create seemingly insurmountable obstacles to conducting an effective rehearsal. The most well-intentioned fire supporters routinely settle for substandard rehearsals because they feel they are victims of events beyond their control. They perceive that the greatest of all enemy forces--**TIME**--has outwitted them, and no matter how badly they really wanted to do a quality fire support rehearsal, it is impossible to do now.

In reality, though, the greatest enemy of effective fire support rehearsals is normally *not* a lack of adequate *time* to conduct the rehearsal. Properly conducted fire support rehearsals are not time-intensive events.

Rehearsals are not the quality product that we desire because *we do not plan for them to be.*

In other words, rehearsals don't accomplish their intents. We conduct rehearsals because we know they are necessary and because our doctrine calls for rehearsals. When the rehearsal is then conducted, it normally is not a rehearsal at all. It is usually a combination of developing the fire support plan, changing the existing plan, or talking through the scheme of fires. Units then mix all of this with a generous portion of what-ifs and wargaming. When the attempt at rehearsing ends, no real rehearsal occurred, yet we feel satisfied because we have conducted a fire support rehearsal. In reality, most fire support rehearsals are rehearsals in name only.

Doctrinally, the requirements and importance of rehearsals are clear. What is lacking is an actual **"how to"** doctrine for fire support rehearsals. This article will explore the rehearsal of fire support, and, in particular, tactics, techniques, and procedures (TTPs) for use when conducting fire support rehearsals. Presenting these TTPs in a tactical standing operating procedure (SOP) format will provide a framework for inclusion in the unit tactical SOP. These TTPs have been developed at the National Training Center (NTC) based on literally hundreds of tactical missions conducted by a wide range of units.

FIRE SUPPORT REHEARSAL SOP

1. This SOP will establish the TTP for the conduct of fire support rehearsals within _____ BDE.

2. The **types** of fire support rehearsals available are:

a. ***Sand table/terrain model.***

b. ***Map rehearsal.***

c. ***FM (radio) rehearsal.***

3. **Order of preference.** The preferred method of fire support rehearsals within the brigade is the FM radio rehearsal. If possible, conduct the rehearsals using the actual terrain that the fire supporter will occupy during the operation. This will allow verification of the communications plan during the rehearsal. As such, all fire supporters will operate on the actual communications devices they will use for execution. The Field Artillery Battalion signal officer will establish alternate frequencies for the conduct of the rehearsal to facilitate communications security (COMSEC), but will announce the actual frequencies for use during execution of the mission prior to the beginning of the rehearsal. The second method in order of preference that will be used is the sand table/terrain model. The least preferable method is a map rehearsal, but if time does not permit conducting an FM or sand table rehearsal, use this rehearsal method as a *minimum*.

4. **Outcome of the rehearsal.**

a. Regardless of the type of rehearsal conducted, verify the following items during the rehearsal:

(1) **The Target List:** Verify the target list to ensure that all fire supporters have the correct and most current brigade consolidated target list. The target list will be verified at the beginning of the rehearsal by the direct support field artillery battalion fire direction officer (FDO).

(2) **The Observation Plan:** Verify the primary and alternate observers for each target. This verification includes the occupation of primary OPs and displacement to subsequent OPs, mission of each observer, and method of execution of responsibilities for each observer. The rehearsal of the observation plan will include all observers (e.g., ETACs, scouts, MPs, etc.).

(3) **Scheme of fire support:** The scheme of fire support will be verified. Scheme of fire support includes several sub-items.

(a) **Triggers for events.** This is a fire support rehearsal, not just a field artillery rehearsal. The triggers that are rehearsed aren't just triggers to fire artillery targets. Rehearsals will include triggers for close air support, naval gunfire, mortars, and other fire support assets.

(b) **Timing of events.** The fire support rehearsal will verify more than just the sequence of events. The time between events will be verified to ensure the time is sufficient to allow accomplishment of all of the events in that sequence. In other words, is there enough time to execute the plan the way it is planned? The verification of the timing of events will be a major goal during the rehearsal.

(c) **Firing unit assignments and volume of fire.** The rehearsal will verify, first, that firing unit assignments have been made, and, second, that the volume of fire is sufficient to achieve the desired effects.

(d) **Priority of targets.** Priority of targets is the method to resolve competing demands for fire support. This is different than priority of fire and high payoff targets. For example, if both enemy air defense artillery (ADA) and artillery are high pay-off targets (HPTs) during a particular phase, rehearsing priority of targets will streamline our fire support process should we get a radar acquisition while the artillery is firing a suppression of enemy air defense (SEAD) program. The rehearsal will verify that priorities during different phases of the fight are appropriate, and that they are clearly understood by everyone.

(e) **Communications nets, both the primary and alternate, as well as the anti-jam plan.**

(f) **Fire support coordinating measures.** The rehearsal will verify that the measures do not affect the execution of the fire support plan in ways that are unexpected. In other words, we don't want to be surprised when an air coordination area (ACA) is placed in effect.

(g) **A review of items that must be verified (rehearsed) during the fire support rehearsal:**

- **➤ The Target List**
- **➤ Observers**
- **➤ Observation Plan**
- **➤ Triggers for Events**
- **➤ Timing of Events**
- **➤ Fire Unit Assignments**
- **➤ Volume of Fire**
- **➤ Priority of Targets**
- **➤ Communications**
- **➤ Fire Support Coordinating Measures**

This is a list of items that are to be verified at the brigade fire support rehearsal. Other **technical** concerns (site to crest, ammunition availability, aiming points, etc.) will be rehearsed by the firing unit during the technical fire support rehearsal, which will be conducted prior to the brigade fire support rehearsal.

5. **When to rehearse.** In coordination with the brigade/battalion XO and S3, the respective fire support officer will ensure that the fire support rehearsal is included on the brigade/battalion timeline published with the operations order. This ensures it is scheduled in advance, everyone in the unit, including the brigade commander, is aware of it, and it is less likely to get bumped because another event is scheduled at the same time. The scheduling of the fire support rehearsal will allow time for:

- **issuance of the brigade operations order (OPORD)**
- **the battalions to develop their plans and to submit their additions to the brigade plan**
- **resolution of duplications and conflicts, and**
- **re-issuance of the brigade consolidated target list.**

BOTTOM LINE: Schedule the brigade fire support rehearsal as early as possible after the individual fire support pieces have rehearsed their parts and preferably before the brigade maneuver rehearsal.

6. **Subordinate fire support rehearsals.** Each fire support piece will rehearse their parts prior to the brigade fire support rehearsal. This pieces/parts rehearsal sequence begins at the company/team level.

a. **Company/Team fire support rehearsals.** This is the easiest part to rehearse, because it has the least number of participants. It is nothing more than a fire support rehearsal at the company/team level. All members of the company/team who have fire support responsibilities should participate and rehearse their parts. If the company fire support officer (FSO) is the only member who has responsibilities, it may merely consist of him, his team, and the company commander rehearsing execution of the company fire support plan, triggers, and occupation of observation posts. On the other hand, if platoon forward observers (FOs), platoon leaders, or track commanders have responsibilities, the rehearsal will have more participants. This rehearsal is particularly important in light infantry companies with company mortars. Commanders may also choose to rehearse key drills or SOP activities, for example, quartering party duties or a platoon “hip shoot.”

b. **Battalion/Task Force fire support rehearsals.** The task force rehearsal is the mirror image of the brigade fire support rehearsal, except units rehearse task force-specific actions and responsibilities. The participants are the same, and the desired outcomes as listed in paragraph 3, above, are the same. If possible, commanders, to include the task force commander, should participate in the rehearsal. This is important because it will allow the task force commander to verify the synchronization of his fire support plan with his maneuver plan, as well as enable him to focus on his subordinate commanders' fire support plans. Additionally, all commanders will become familiar with the entire fire support plan, as opposed to their small piece.

c. **Brigade executor's rehearsal.** Like the task force rehearsal, it will include only the brigade participants, such as combat observation lazing teams (COLTs), air liaison officers (ALOs), and any other elements under brigade control. The brigade executors need to be well-versed in their parts before brigade fire support rehearsal as much as any other executor in the brigade. Again, if possible, the brigade commander should participate. The brigade commander should be present for the same reason company team and task force commanders should participate in the task force fire support rehearsal. Task force FSOs should attempt to monitor this rehearsal.

They will gain valuable insight into the brigade maneuver and fire support plans.

d. **Field Artillery technical fire support rehearsal.** This is the rehearsal that will ensure the plan can be supported from a technical aspect. This is the rehearsal that will resolve the sight to crest problems, the ammunition availability issues, and the movement of firing unit concerns before the entire fire support system comes together for the brigade fire support rehearsal.

7. **Participants in the brigade fire support rehearsal.** The following personnel will participate in the brigade fire support rehearsal:

- **All Company/Team FSOs**
- **All platoon FOs**
- **All Battalion/TF FSOs/FSEs**
- **Bde FSO/FSE**
- **DS and Reinforcing artillery battalion S-3, S-2, FDO**
- **FSCOORD**
- **ALOs, ETACs, TACPs, and heli-FACs**
- **All COLTs**
- **All aerial observers**
- **Radar tech/radar section**
- **All mortar plts/sections (both battalion and company)**
- **Any other personnel who have responsibility to execute a portion of the fire support plan.**

8. **Elements of the brigade fire support rehearsal.**

a. The brigade fire support rehearsal begins with the brigade FSO conducting a roll-call to ensure all participants are present and prepared to conduct the rehearsal. Each battalion FSO will ensure that all of the company/team FSOs, ALOs, and mortar platoon leaders are prepared, and will respond for them during roll-call. The FA Battalion S-3 will ensure the field artillery battalion participants are prepared and will respond for them. The brigade FSO will respond for the brigade participants.

b. Following the roll-call, the FSCOORD will address the participants. The FSCOORD will state the Brigade Commander's concept for fire support, his intent, as FSCOORD, and the critical fire support tasks that must be accomplished to fulfill the brigade commander's concept for fire support. The FSCOORD will also give any amplifying guidance that is required. Last, the FSCOORD will provide guidance for the rehearsal. His guidance should include his desired outcomes for the rehearsal, and areas of special emphasis to be rehearsed.

c. The DS artillery battalion fire direction officer then publishes the brigade consolidated target list by target number, grid, and special instructions, to all participants. This will ensure that all fire supporters have the most recent updates and refined target locations.

Any changes to the target list made prior to the rehearsal should be sent to all fire supporters as soon as the change is made. Changes will not be "saved up" until the fire support rehearsal. If this is allowed to happen, and wholesale changes are made to the target list during the rehearsal, the result of the rehearsal will be less than satisfactory. The new targets certainly won't be rehearsed properly; triggers may not yet be in place, the new targets aren't integrated into the scheme of fires, and firing unit assignments won't have been made. Transmit changes to the target list to everyone as they occur to permit detailed planning for the execution of all targets, and proper rehearsal of the execution.

d. After the battalion fire direction officer has read the target list, and all stations have acknowledged receipt, the rehearsal continues.

e. The Brigade FSO will then continue with the current fire support coordinating measures:

EXAMPLE:

"This is Bde FSO, we will begin rehearsing the execution of the fire support plan. The current CFL is PL Fresno. NFA 2, grid NK 396250, 200 meter radius, is in effect. BREAK. . . FA BN S2, begin the enemy time line at H-:10, continue with enemy actions."

f. The DS artillery battalion S2 and S3 will explain enemy actions and/or friendly actions event by event. When the S2 announces the event, all fire supporters will execute the portion of the fire support plan triggered by that event.

EXAMPLE: (if the enemy were attacking):

"This is FA BN S2; the time is now H+:10. The CRPs have passed the MRR commander's decision point, NAI 91, and he has committed to continuing his attack eastward, into our brigade's sector."

g. In this example, the brigade ALO has an event that is to be triggered at NAI 91. He would execute this event:

"This is BDE ALO; CRPs at NAI 91 is my trigger. I am requesting release of two A-10s currently on ground alert to IP X-RAY. Time to IP X-RAY is 55 minutes."

h. During the fire support rehearsal, the executer will always announce the trigger that is causing him to execute the particular event. This event-by-event methodology will continue through the rehearsal.

i. **Execution of fire missions.**

(1) Execute fire missions in the same manner as discussed above.

When the appropriate trigger is announced by either the S2 or S3 (depending on whether the action is enemy-event or friendly-event triggered), the observer will execute his call fire to the FDC. The observer will also announce his current OP location and the trigger to execute the event.

EXAMPLE:

A Company FSO: "This is A Co. FSO. I am currently occupying an observation post at grid NK385250. CRPs at NAI 91 is my trigger, BREAK. . . FDC, this is A Co. FSO, fire target WP0032, AMC, over."

FDO: "Fire target WP0032, AMC, out."

(2) The fire direction officer will repeat the call for fire, then issue a message to observer which includes time of flight:

FDO: "A Co. FSO this is FDC, MTO: DS Battalion, two rounds, target number WP0032, TOF 38 seconds, over."

A Company FSO: "This is A Co. FSO, MTO: DS Battalion, two rounds, target number WP0032, TOF 38 seconds, out."

(3) Following the message to observer, the alternate observer/executor will announce his responsibility for execution:

B Company FSO: "This is B Co. FSO. I am currently occupying an observation post at grid NK395250. I have alternate responsibility to execute target number WP0032, AMC, when the CRPs are at NAI 91, and to fire WP0032 when the CRPs are at NAI 81, out."

(4) When the S2 or S3 announce the appropriate trigger, in this case a CRP at NAI 81, the observer will fire the target:

A Company FSO: "FDC, this is A Co. FSO. A CRP exiting the northern pass; NAI 81, is my trigger; fire target number WP0032, over."

FDO: "This is FDC, fire target WP0032, out."

FDO: "A Co. FSO, this is FDC; shot target number WP0032, over."

A Company FSO: "This is A Co. FSO; shot target number WP0032, out."

FDO: "A Co. FSO, this is FDC, rounds complete target WP0032, S2: "RADAR this is FA BN S2; the CRPs exiting the passes, NAI 81, is my trigger, call for fire zone number 1, and critical friendly zones 4, 5, and 6 are in effect now. Que radar schedule November, 10 minutes, over."

Radar Tech: "FA BN S2 this is RADAR, call for fire zone number 1, and critical friendly zones 4, 5, and 6 are in effect. Que schedule November, 10 minutes, out, over."

(5) During the brigade fire support rehearsal, it is not necessary to transmit fire orders to firing units, or to transmit fire commands to howitzer sections. These actions will have been conducted during the technical fire support rehearsal, prior to the brigade fire support rehearsal. Certainly, the FSCOORD may direct that the brigade fire support rehearsals are carried to the howitzer section level, but in doing so, he must understand that the time required for the rehearsal will increase at least threefold.

j. **Rehearsal of firefinder radar events.** Just as with all other fire support actions during the rehearsal, cuing the radar and implementation of zones should occur at the appropriate trigger during the rehearsal.

k. **Rehearsal of close air support.**

(1) When the appropriate trigger is reached, the ALO (or controlling ETAC/TACP) will rehearse their actions. The complete 9 line fighter brief will be rehearsed:

BDE ALO: "This is BDE ALO, an MRB at PL Red is my trigger, four A-10 aircraft with MAVERICKS are at IP WHISKEY. CAS briefing follows: "

"IP: WHISKEY

Magnetic heading from IP to target: 265 offset right,

Distance from IP to target: 7.3 nautical miles

Description of target: MRB north of lake.

Target location: NK410289

Elevation of target: 3150 feet above sea level

Marking of target: Laser, CODE to be determined by aircraft, white phosphorus 500 meters east of target

Location of friendlies: 3,000 meters east in battle position east of lake.

Egress: East along north wall of east/west valley.

Remarks: Artillery SEAD will be fired, ETAC will control, engage with MAVERICKS first, immediate re-attack with guns, stay north of lake.

Time to target - standby: 7 minutes plus 30 seconds - hack

End of briefing.

Time from IP to target, 1 minute, 48 seconds, over."

(2) The execution of the CAS will be rehearsed exactly like the rehearsal of fire missions, with SEAD, ACAs, etc, being executed fully:

COLT 2: "This is COLT 02; I am occupying an observation post at grid NK435303. ETAC 1 is collocated with me. ETAC 1 is in contact with the aircraft. I have the responsibility to designate the MRB north of the lake as the target for the aircraft. I will receive the PRF code for designation from the ETAC at this time."

BDE FSO: "FDC, this is Bde FSO, fire SEAD PROGRAM RED, final rounds to impact 6 minutes from my mark, prepare to mark. . . prepare to mark, 5, 4, 3, 2, 1, mark, over."

FDO: "This is FDC; good mark, fire SEAD PROGRAM RED, final rounds to impact 6 minutes from your mark, out."

(3) Rehearse all fires in a schedule of fires (in this case SEAD PROGRAM RED and the CAS hack) in the same manner as other fires, with one exception. Announce the time elapsed since the mark when executing the event. This will verify the timing of events and ensure all participants are aware of the time/event sequence.

FDO: "BDE FSO, this is FDC; the time is now 2 min, 22 sec from your mark, shot, SEAD PROGRAM RED, target WP0040, over. "

BDE FSO: "Shot, WP0040, out."

FDO: "BDE FSO, this is FDC; the time is 2 min, 55 sec from your mark, splash WP0040, over."

BDE FSO: "Splash WP0040, out."

ETAC 1: "BDE FSO, this is ETAC 1. The time is 4 min, 42 sec from your mark, four A-10s are departing the IP."

FDO: "BDE FSO, this is FDC. The time is 5 min, 21 sec from your mark, shot, WP0041, white phosphorus, over."

BDE ALO: "This is BDE ALO, roger, out."

COLT2: "This is COLT 02; there is no change to my observation post. I am designating the northern MRB for CAS; PRF code to be determined by the aircraft, out."

ETAC 1: "BDE FSO, this is ETAC 1. The time is 6 minutes, 30 sec from your mark, four A-10s are attacking the target, over."

BDE FSO: "This is BDE FSO, roger, report aircraft clear, over."

ETAC 1: "This is ETAC 1, WILCO, out."

ETAC 1: "BDE FSO, this is ETAC 1. The aircraft are clear; the flight leader reports two T-72s and two BMPs destroyed, over."

BDE FSO: "This is BDE FSO, roger, BREAK. . . ALL STATIONS, cancel ACA ROBIN, over."

FDO: "This is FDC, roger, out."

TF 1-1 FSO: "This is TF 1-1 FSO, roger, out."

TF 2-1 FSO: "This is TF 2-1 FSO, roger, out."

TF 3-1 FSO: "This is TF 3-1 FSO, roger, out."

BDE ALO: "This is BDE ALO, roger, out."

l. **Rehearsal of counterfire.**

(1) During the rehearsal, it is necessary to rehearse the priority of targets. That is, how we will react to the competing demands placed on the fire support system. The execution of counterfire is one such competing demand. Rehearse counterfire procedures, or they will catch the system by surprise. A technique that may be used to rehearse counterfire, is for the radar technician, who is participating in the rehearsal, to randomly insert radar acquisitions into the rehearsal during the times the radar is cuing. The exact timing and number of the rehearsed acquisitions is a matter that should be addressed by this unit SOP. At a minimum, insert and rehearse one acquisition per cue block. Focus this acquisition on the enemy phases of fire.

EXAMPLE:

Radar Tech: "FDC and FA BN S2, this is RADAR, Acquisition, call for fire zone 1, weapon grid: NK300295, impact predict: NK357282, over."

FDO: "This is FDC, radar acquisition, call for fire zone 1, weapon grid: NK300295, impact predict: NK357282, out."

S2: "This is FA BN S2, roger, out."

FDO: "BDE FSO, this is FDC. Following commander's attack guidance for this phase of the operation, I am now pulling one battery off of WP0044 to fire counterfire, over."

BDE FSO: "This is BDE FSO, roger, out."

FDO: "A FDC, this is FDC, EOM target WP0044, over."

A Btry FDC: "This is A FDC, EOM target WP0044, out."

FDO: "A FDC this is FDC, FFE, A, grid NK300295, six rounds, target number WP7012, over."

A Btry FDC: "A FDC, FFE, A, grid NK300295, six rounds, target number WP7012, out."

(2) After pulling one battery off the current mission, the FDO will then increase the volume of fire for the two remaining batteries to ensure it still achieves the desired effects. A revised MTO is then sent to the observers.

FDO: "B FDC and C FDC, this is FDC, correction method of fire, target WP0044, 6 rounds, over."

B Battery FDC: "This is B FDC, correction method of fire, target WP0044, 6 rounds, out."

C Battery FDC: "This is C FDC, correction method of fire, target WP0044, 6 rounds, out."

FDO: "A FDC, this is FDC, change to MTO, target number WP0044: B and C, 6 rounds, target WP0044, TOF 37 sec, over."

A Company FSO: "This is A CO. FSO, change to MTO, target number WP0044: B and C, 6 rounds, target WP0044, TOF 37 sec, out."

9. **Conclusion of the fire support rehearsal.** The brigade FSO ends the rehearsal when it addresses all actions in their proper sequence and it resolves all discrepancies. The FSCOORD will restate his guidance and provide concluding remarks.

CONCLUSION

The fire support rehearsal is a critical and often overlooked portion of our preparation for battle. Rehearsals generally are ineffective, not by design, but because leaders truly do not know how to rehearse. This article has explored the fire support rehearsal at the brigade level. The lessons learned are applicable at all levels. Effective rehearsals do not happen by accident. Plan them in advance. Unit tactical SOPs must address the conduct of rehearsals so that the format becomes routine.

An FM fire support rehearsal was presented here as an example of one method of conducting a rehearsal. The actual format will vary by unit SOP, but the TTPs presented during this SOP are proven effective. It will provide a sound framework for your unit tactical SOP. The bottom line: fire support rehearsals that have the desired outcome clearly defined; are planned in advance; and follow these TTPs will certainly be more effective and will help you to synchronize your fire support plan.✪

FIRE SUPPORT PLANNING IN THE ATTACK HELICOPTER BATTALION

By CPT Rick Richardson, FA

"Combined arms warfare produces effects that are greater than the sum of the individual parts. . . . The application of combined arms in this manner is complex and demanding. It requires detailed planning and violent execution by highly trained soldiers and units who have been thoroughly rehearsed."

-- FM 100-5, *Operations*

"To survive and succeed on the battlefield, the Attack Helicopter Battalion must fight as an integrated member of the combined arms team." -- FM 1-112, *Attack Helicopter Battalion*

Fire support in the Attack Helicopter Battalion is much more than the Suppression of Enemy Air Defense (SEAD). Fire support can play a broader role in the execution of the Attack Helicopter Battalion's mission. This article focuses on techniques to integrate fire support as an effective combat multiplier during the Attack Helicopter Battalion planning process.

AVIATION FIRE SUPPORT

Fire support for the Attack Helicopter Battalion is fundamentally the same as fire support for any ground maneuver battalion. Key differences in the Attack Helicopter Battalion are:

1. ***Supporting Artillery.*** The Attack Helicopter Battalion and Aviation Brigade have no habitually related artillery in direct support. Normally, the Attack Helicopter Battalion receives its artillery fire support from the organization to which it is attached or under operational control. This support usually comes from division or corps general support artillery.

2. ***Fire support element.*** The Attack Helicopter Battalion fire support element is not as robust as its ground maneuver counterparts. In addition, unlike its ground counterparts, the Attack Helicopter Company has no Fire Support Teams (FISTs). Therefore, the Attack Helicopter Battalion Fire Support Officer (FSO) must rely on scout and attack helicopter air crews to execute the commander's scheme of fires.

3. ***Planning.*** The Aviation Brigade Fire Support Element does much of the fire support planning for the Attack Helicopter Battalion. The key role of the Attack Helicopter Battalion FSO is to plan and execute fire support for the battalion fight.

FIRE SUPPORT PLANNING

One of the Attack Helicopter Battalion Commander's greatest challenges is to synchronize and concentrate all of his combat power at the critical time and place. The goal of fire support planning is to effectively integrate fire support into battle plans to optimize this combat power. The FSO must work with the battalion staff to translate mission, enemy, terrain, weather, troops, time available, guidance from higher headquarters, and the commander's guidance into the final scheme of fire support. Figure 1 illustrates typical attack helicopter fire support considerations.

PHASE	*ACTIONS TO BE TAKEN*
Ingress/Egress	**Consider planning:** **✔ fires on enemy Air Defense Artillery (ADA) weapons that are a threat along ingress and/or egress routes** **✔ fires on enemy ADA C^3, acquisition and tracking radars** **✔ fires to suppress enemy direct fire weapons that could be used in an AD role along routes** **✔ Smoke to restrict enemy observation and optical ADA acquisition and tracking systems** **Consider preparation fires on the battle positions and in the engagement area if the advantages outweigh the disadvantages:** **✔ Will the enemy be forewarned of an attack?** **✔ Will the loss of surprise significantly affect the chance of success?** **✔ Are there enough significant targets to justify a preparation?** **✔ Is there enough fire support ammunition to fire an effective preparation?** **✔ Can the enemy recover before the effects can be exploited?** **✔ Will smoke and dust from the preparation degrade attack helicopter observation and gun/missile engagements?** **Determine when and how you will shift fires:** **✔ Time: at a predetermined time, fires will shift.** **✔ Location: fires will shift when the maneuver unit reaches a certain location, such as a phase line.** **✔ On call: the maneuver commander directs when the fires shift.** **✔ Event: a predetermined event signals shifting of fires.**

Figure 1. ATTACK HELICOPTER FIRE SUPPORT CONSIDERATIONS

PHASE	*ACTIONS TO BE TAKEN*
Engagement area	**Consider planning:** **✔ fires to suppress ADA weapons or direct fire weapons capable of use in an ADA role.** **✔ fires to suppress, neutralize, or destroy in order to delay, disrupt, limit, attrit enemy forces to assist in accomplishing the mission.** **✔ fires to suppress enemy forces as friendly elements maneuver.** **✔ smoke to obscure vision of enemy forces.** **✔ fires to isolate enemy formations.** **✔ fires to support disengagement.** **Allocate priority targets.** **Plan trigger points for possible moving targets.** **Plan Critical Friendly Zones (CFZs) around battle positions** **If available, plan scatterable mines (FASCAMs) to slow or canalize the enemy.** **On obstacles:** **✔ Plan fires behind obstacles to hinder enemy breaching operations.** **✔ If available, plan FASCAM to re-seed minefields that the enemy has breached.** **✔ Plan fires to close gaps and lanes in barrier or obstacle plans.** **✔ Integrate fires with obstacle to compliment direct fire weapons.**
PHASE	*ACTIONS TO BE TAKEN*
Beyond the engagement area	**Consider planning fires:** **✔ to suppress or destroy overwatching ADA weapons** **✔ to impede enemy reinforcements** **✔ to block avenues of approach for counterattacking enemy forces or repositioning ADA weapons.** **✔ to slow or block enemy retreat** **✔ to interdict following enemy formations.**

Figure 1 (Continued). ATTACK HELICOPTER FIRE SUPPORT CONSIDERATIONS

MISSION ANALYSIS.

Mission analysis is the first step in the planning process. The Battalion FSO provides the following information during mission analysis:

☛ **Fire support asset allocation and status.**

☛ **Brigade Commander's intent/concept of fires.**

☛ **Fires planned by higher headquarters in zone.**

☛ **Limitations and constraints.**

Technique: *The Battalion Fire Support NCO should train to be able to conduct mission analysis in the absence of the FSO during high tempo operations.*

COMMANDER'S GUIDANCE FOR FIRE SUPPORT.

Too often this guidance is simply to suppress enemy air defense, mass indirect fires to destroy the enemy, and execute targets of opportunity as required. This vague guidance rarely produces a coordinated plan that supports the scheme of maneuver and provides a focus for the observers and supporting artillery.

FM 6-20-20*, Fire Support at Battalion Task Force and Below,* *27 December 1991*, states *"The commander's intent serves to prioritize fire support on the battlefield and focus fire support execution at the critical time and place. To be useful, the commander's intent for fire support must be both understood and feasible. This requires a mutual effort by FSOs and supported commanders to articulate and understand exactly what fire support can, and is expected to, accomplish during an operation. The commander's requirements of the fire support system must be within the capabilities of the resources available - adjusted as necessary for mission, enemy, terrain, troops, and time available (METT-T) factors. The FSO must know and communicate fire support capabilities, limitations, and risks during the process of developing the commander's intent for fire support."*

Technique: *The commander's guidance should address the following:*

☛ ***enemy formation to be attacked***

☛ ***enemy function that is unacceptable***

☛ ***desired effects***

☛ ***purpose: the maneuver reason for effects***

Technique: *Address artillery effects desired per* **FM 6-20- 10*, The Targeting Process,*** *using the terms disrupt, delay, and limit. These terms apply to the effect that the damage has on the target as it pursues a course of action.*

☛ ***Disrupt: Prevent the enemy from carrying out his function in the method he intends. Example: "Disrupt the enemy's ability to fix our screening force."***

☛ ***Delay: To cause that function or action to happen later than the enemy desires. Example: "Delay 2d Motorized Rifle Company (MRC) until A & B companies destroy the 1st MRC."***

☛ ***Limit: Prevent that action or function from happening where the enemy wants it to happen. Example: "Limit the advance guard's use of the ridge to position its air defense weapons."***

Example Commander's Guidance: Disrupt the Combined Arms Reserve 2d Motorized Rifle Company's ability to fix B & C companies until they destroy the 1st MRC with direct fire.

Technique: *When planning time is limited, the commander must give specific guidance in the quick decisionmaking process:*

☛ ***Who will indirect fires affect: enemy formation, High Payoff Targets***

☛ ***What are the desired effects: destroy, neutralize, suppress (with an assigned no./ type of vehicles) to delay, disrupt, limit, etc.***

☛ ***How this will be accomplished: field artillery, mortars, close air support, electronic warfare***

☛ ***Where will it be accomplished: in engagement area Red, at target reference point 1, at target AV2001***

☛ ***When will it occur: when the Forward Security Element is identified, as the 1st MRC crosses decision point 1***

☛ ***How the task contributes to our success: to allow B Co to maneuver to battle position 21***

COURSE OF ACTION DEVELOPMENT.

During this phase, the FSO and staff should translate the commander's guidance into a concept of fires for each course of action.

Technique: *Determine*

☛ ***Concept of fires in terms of task, purpose, method, and end state that achieves the effects required***

☛ ***Tentative triggers and Fire Support Coordination Measures (FSCMs)***

☛ ***Tentative observer focus and positioning***

Example Concept of Fires:

☛ ***Task:*** **Disrupt the 2d Motorized Rifle Company (MRC)**

☛ ***Purpose:*** **Prevent the 2d MRC from engaging B and C Companies while they destroy the 1st MRC**

☛ ***Method:*** **A Company eyes on 2d MRC deep, MLRS triggered on 2d MRC as they enter EA Gold**

☛ ***End state:*** **Two2 BMPs destroyed, flank 2S6s suppressed, 2d MRC unable to engage attack companies**

WARGAME.

The wargame is the process where the FSO turns the concept of fires into a detailed scheme of fires. The result of the wargame is a clear sequence of fire support events with detailed triggers, fire support coordination measures, and observer plan. In addition, the staff must clearly identify attack systems, volume of fires required, and High Payoff Targets.

Through the wargaming process of action-reaction-counteraction, the FSO recommends the best concept of fire support that supports each course of action developed. As the friendly and enemy courses of action are fought in the wargame, the FSO and staff determine how to integrate fire support with the scheme of maneuver. The FSO recommends fire support employment options and determines how fire support will be used with direct fire weapons and maneuver in terms of time and space.

TARGETING.

Targeting is an integral part of the detailed wargame of the chosen course of action. Targeting is the process of identifying enemy targets for possible engagement and determining the appropriate attack system to be used to achieve the desired target effects. The emphasis of targeting is on identifying the enemy function or formation he can least afford to lose to accomplish the friendly mission. To be effective, targeting must be an integral part of engagement area development and direct fire planning. And most important, *targeting decisions must support the commander's intent to affect the target in the way the commander desired.*

Targeting at the Attack Helicopter Battalion is not as formal as targeting at the brigade. However, the concept of the targeting process, which identifies High-Payoff Targets, and eventually evolves into attack guidance, is still valid and useful at battalion level.

The focus of the targeting process is development of a prioritized list: the High Payoff Target (HPT) list and the Attack Guidance Matrix (AGM). This list specifies:

➤ What targets are to be acquired and attacked

➤ When they are to be acquired and attacked

➤ What is required to achieve the commander's desired effects

The battalion may not develop its own formal High Payoff Target list and the Attack Guidance Matrix. The battalion may use or modify the High Payoff Target list and attack guidance developed by brigade and higher fire support elements. No matter which products are developed, the focus at the battalion level is to determine the critical information required to detect, prioritize, and engage *appropriate* targets. Bottom line, battalion targeting must be time sensitive and practical.

Targets should be developed by the targeting team: S-3 (operations), S-2 (intelligence), Electronic Warfare Officer, and FSO. Targeting as a team ensures that the targets are synchronized with, and supported by, the enemy situation and scheme of maneuver. The FSO advises the targeting team on the following:

➤The fire support system's ability to defeat high-payoff or other designated targets.

➤The best means of attack.

➤The best type of munitions to achieve the commander's desired results.

Technique: *Armed with the S-2's situation and event templates, High Value Targets, and commander's guidance, the targeting team should interact during wargaming to develop targeting products. As the staff fights the different options during the wargame, the S-2 must identify specific High Value Targets and the collection means available to acquire these targets (including the FSOs observation plan). The S-3 and FSO use their knowledge of friendly weapons systems to determine if a capability exists to attack the High Value Targets with lethal and nonlethal assets. Using this knowledge of friendly attack capabilities and the knowledge of enemy vulnerabilities, the S-2 then analyzes and predicts the enemy's response to each attack method. This analysis determines if the attack of the High Value Targets is necessary to ensure the success of the friendly mission. The High Value Targets that meet the criteria of being acquirable, attackable, and necessary to ensure friendly success are designated High Payoff Targets and recorded on the Decision Support Template (DST) for that specific phase of the battle. In addition, as part of High Payoff Target development, the targeting team should determine when to acquire and attack targets while deciding the best means of attack. Knowing target vulnerabilities and the effect a method of attack has on an enemy operation allows the staff to propose the most efficient available acquisition means, attack means, and time to attack.*

Technique: *The targeting team can use the Aviation Mission Planning System (AMPS), Terrabase, and Tactical Sensor Planner as tools to identify enemy weapons and radar that can affect friendly operations.*

The FSO, as part of the targeting team, determines which and how many enemy systems to attack with lethal and nonlethal indirect fires to achieve the desired target effect. The FSO must also use battlefield calculus to figure what the fire support assets can actually accomplish. Most important, the FSO must determine if he can meet the commander's guidance.

Technique: *The FSO should consider the following questions as part of battlefield calculus during engagement area development:*

☛ ***How many vehicles will enter the engagement area (EA)?***

☛ ***How long will the enemy be in the EA?***

☛ ***How many rounds can I fire during that time?***

☛ ***How many vehicles will these rounds kill or suppress?***

☛ ***Can we kill him in the numbers required?***

Technique: *Before a target number is assigned and the target placed on the map, the targeting team should answer these questions:*

☛ ***What is the purpose of the target?***

☛ ***Does this target reflect the commander's intent?***

☛ ***Is this target in synch with the Intelligence Preparation of the Battlefield?***

☛ ***Can this target be observed and triggered?***

DECISION SUPPORT TEMPLATE.

The Decision Support Template is developed as the commander and staff form the operations plan during the wargaming process. Wargaming identifies the decision points for the commander while the Decision Support Template graphically portrays the decision points and the options available to the commander if an action occurs. It identifies the critical fire support triggers on the battlefield and is an aid to the commander and staff in synchronizing the battlefield operating systems. The Decision Support Template provides the FSO with the critical information that is required to plan fire support that is synchronized with direct fire and maneuver. This information becomes the basis of the fire support plan.

FIRE SUPPORT PLAN.

The fire support plan is based upon the detailed scheme of fires developed during the wargaming process. The fire support execution matrix and detailed observer plans are the end result fire support products developed during the wargame.

The plan may include the following:

➤ **Commander's guidance for fire support.**

➤ **Availability of fire support assets and their status.**

➤ **A fire support execution matrix that lays out the clear sequence of fire support events.**

➤ **A target list that includes locations where fires are expected or likely to be used.**

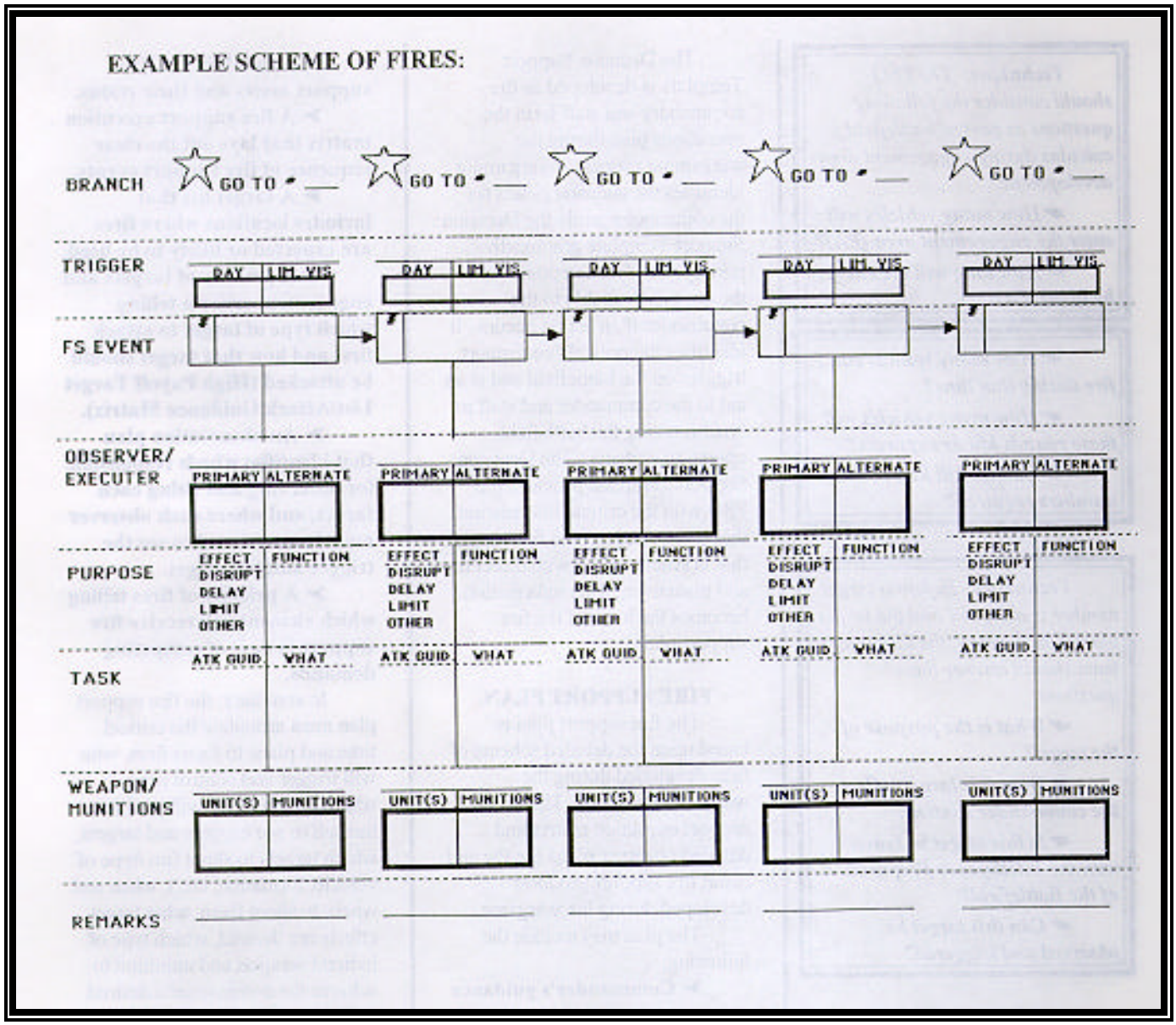
➤ **A priority of targets and engagement criteria telling which type of target to attack first and how that target should be attacked (High Payoff Target List/Attack Guidance Matrix).**

➤ **An observation plan that identifies who is responsible for observing and firing each target, and where each observer must be positioned to see the trigger and the target.**

➤ **A priority of fires telling which element will receive fire support in case of competing demands.**

In summary, the fire support plan must articulate the critical time and place to focus fires, who will trigger and control fires, where the observer will position himself to see triggers and targets, which targets to shoot (no./type of vehicle, formation, etc.), when and where to shoot them, what target effects are desired, which type of indirect weapon and munition to achieve the commander's desired results, and the purpose of shooting the target.

EXAMPLE SCHEME OF FIRES:



OBSERVATION PLAN.

If a target is important enough to target, it is important enough to assign an observer to control fires. Because Attack Helicopter Companies do not have assigned fire support teams, the Battalion FSO normally assigns observer responsibilities to specific companies. However, the FSO must receive bottom-up refinement from the companies on the details of their observation plan to validate their ability to execute the battalion fire support plan. All targets should have alternate observers assigned in case the primary observer is unable to fire the target.

Technique: *Use the Aviation Mission Planning System (AMPS) or Terrabase to analyze terrain to determine observer line of sight to assist in observation post selection.*

FSO/FSNCO POSITIONING.

The FSO must decide where he and his Non-Commissioned Officer (FSNCO) should locate for mission execution. This is especially crucial because there are no fire support teams at the company level. The FSO normally has four options: locate with the Battalion Commander, S-3, battalion command post, or tactical command post.

The type of aircraft used by the commander and S-3, and radio capabilities of any airborne command and control (C^2) aircraft affect the FSO's options. The FSO must position himself and the FSNCO where they can best support the commander's concept of fires.

COMMUNICATIONS.

The FSO and S-3 must also decide how the observer will send fire missions and spot reports to the FDC. The FSO will usually require observers to send all fire missions through him or the FSNCO. This way, the FSO can clear fires and ensure the missions support the scheme of fires and commander's concept. In addition, the Attack Helicopter Battalion may require an aerial or ground radio re-transmission team to talk over long distances to the supporting artillery. The FSO may also request a quick-fire channel to facilitate rapid communications with the supporting artillery. This is usually most effective when supported by division or corps general support assets.

CLEARANCE OF FIRES.

Attack Helicopter Battalions typically receive missions to attack second echelon and reserve forces, stop enemy penetrations, and to conduct screens forward or to the flanks of the ground maneuver forces.

These missions often require the Attack Helicopter Battalion to request fires into the ground maneuver zone of action. FSOs must develop and coordinate maneuver and fire support control measures to safeguard friendly elements and ease rapid clearance of fires outside the battalion's zone. In addition, the FSO must develop plans to control and coordinate indirect fires within the Attack Helicopter Battalion's subordinate units.

Technique:

☛ ***Establish and practice positive controls (maneuver control measures and fire support coordination measures).***

☛ ***Establish simple procedures for external (adjacent and higher) and internal (company) clearance of fires. Include these procedures in Standing Operating Procedures (SOPs).***

☛ ***Use Aviation Brigade Liaison teams for detailed coordination with external units.***

CONCLUSION.

The combat power of the Attack Helicopter Battalion is most effective when synchronized with massed indirect fires. The Attack Helicopter Battalion FSO plays a crucial role during the planning process to effectively integrate these fires. As a combat multiplier available to the Attack Helicopter Battalion Commander, fire support will always play a key part in the application of firepower and maneuver.